

INFORMATION PERCEIVED AS USEFUL
FOR PROGRAM QUALITY-EVALUATION DECISION MAKING
BY ADMINISTRATORS IN FLORIDA COMMUNITY COLLEGES

BY

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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.....	ii
LIST OF TABLES.....	v
ABSTRACT.....	ix
CHAPTER I INTRODUCTION.....	1
The Problem.....	5
Need for the Study.....	6
Delimitations and Limitations.....	7
Definition of Terms.....	8
Organization of the Study.....	9
CHAPTER II REVIEW OF RELATED LITERATURE.....	10
Educational Quality.....	10
Graduate Education.....	12
Undergraduate Education.....	19
Quantifiable Approaches to Quality.....	23
Educational Evaluation.....	26
Toward a Definition of Educational Evaluation.....	27
Contemporary Models of Educational Evaluation.....	30
Decision-Oriented Model of Educational Evaluation.....	33
Summary.....	39
CHAPTER III METHODS AND PROCEDURES.....	42
Design of the Study.....	42
Development of the Questionnaire.....	43
Survey Population.....	47
Collection of the Data.....	47
Analysis of the Data.....	49
CHAPTER IV RESULTS.....	51
Introduction.....	51
Description of Respondents.....	52
Results for All Respondents.....	55
Results for Program Areas.....	70
Advanced and Professional Program Area.....	73
Occupational Program Area.....	81

	Page
Student Services Area.....	96
Developmental Program Area.....	108
Community Instructional Services Program Area.....	117
Summary.....	130
CHAPTER V SUMMARY, CONCLUSIONS, RECOMMENDATIONS.....	131
Summary.....	131
Conclusions.....	134
Recommendations.....	136
Recommendations for Further Study.....	137
APPENDICES	
A. DESCRIPTIONS OF THE PROGRAM AREAS.....	138
B. PERSONS INCLUDED IN REVIEW PANEL USED IN REFINING THE LIST OF PROGRAM CHARACTERISTICS AND THE STUDY QUESTIONNAIRE	139
C. QUESTIONNAIRE.....	141
D. POSITION CODES WITH FREQUENCIES USED IN THE CATEGORIZATION OF RESPONDENTS BY PROGRAM AREA.....	153
E. RANKS AND MEANS FOR ALL PROGRAM CHARACTERISTICS FOR ALL RESPONDENTS AND FOR RESPONDENTS BY PROGRAM AREA.....	156
REFERENCES.....	174
BIOGRAPHICAL SKETCH.....	181

LIST OF TABLES

Table		Page
1	Frequencies for All Respondents by Sex, Degrees Held, Years at Present College, Years in Present Position, Years in Community College Education, and Years in Other Than Community College Education by Self-Report.....	53
2	Number of Respondents Per Program Area and Corresponding Percentages of All Respondents.....	54
3	Ranks for Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings for All Respondents With Corresponding Ranks for Respondents Classified into Program Areas	56
4	Distribution by Category of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by All Respondents.....	63
5	Program Characteristics Relating to Students (Questionnaire Category I) in the Upper Quartile of Mean Usefulness-Ratings by All Respondents With Ranks.....	64
6	Program Characteristics Relating to Faculty/Staff (Questionnaire Category II) in the Upper Quartile of Mean Usefulness-Ratings by All Respondents With Ranks.....	65
7	Program Characteristics Relating to Costs/Resources (Questionnaire Category III) in the Upper Quartile of Mean Usefulness-Ratings by All Respondents With Ranks.....	67
8	Program Characteristics Relating to General Information (Questionnaire Category IV) in the Upper Quartile of Mean Usefulness-Ratings by All Respondents With Ranks.....	69
9	Information Profile of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by All Respondents.....	71
10	Spearman Rank-Order Correlation Coefficients for the Upper Quartile of Mean Usefulness-Ratings by All Respondents for Respondents Classified in the Five Program Areas.....	73
11	Distribution by Category of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Advanced and Professional Program Area..	74

LIST OF TABLES (continued)

Table		Page
12	Program Characteristics Relating to Students (Questionnaire Category I) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Advanced and Professional Program Area With Ranks.....	75
13	Program Characteristics Relating to Faculty/Staff (Questionnaire Category II) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Advanced and Professional Program Area With Ranks.....	76
14	Program Characteristics Relating to Costs/Resources (Questionnaire Category III) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Advanced and Professional Program Area With Ranks.....	78
15	Program Characteristics Relating to General Information (Questionnaire Category IV) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Advanced and Professional Program Area With Ranks.....	79
16	Information Profile of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Advanced and Professional Program Area..	82
17	Distribution by Category of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Occupational Program Area.....	83
18	Program Characteristics Relating to Students (Questionnaire Category I) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Occupational Program Area With Ranks.....	84
19	Program Characteristics Relating to Faculty/Staff (Questionnaire Category II) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Occupational Program Area With Ranks.....	87
20	Program Characteristics Relating to Costs/Resources (Questionnaire Category III) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Occupational Program Area With Ranks.....	89
21	Program Characteristics Relating to General Information (Questionnaire Category IV) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Occupational Program Area With Ranks.....	92

LIST OF TABLES (continued)

Table		Page
22	Information Profile of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Occupational Program Area.....	95
23	Distribution by Category of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Student Services Area.....	97
24	Program Characteristics Relating to Students (Questionnaire Category I) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Student Services Area With Ranks.....	98
25	Program Characteristics Relating to Faculty/Staff (Questionnaire Category II) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Student Services Area With Ranks.....	101
26	Program Characteristics Relating to Costs/Resources (Questionnaire Category III) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Student Services Area With Ranks.....	104
27	Program Characteristics Relating to General Information (Questionnaire Category IV) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Student Services Area With Ranks.....	105
28	Information Profile of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Student Services Area.....	107
29	Distribution by Category of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Developmental Program Area.....	109
30	Program Characteristics Relating to Students (Questionnaire Category I) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Developmental Program Area With Ranks.....	111
31	Program Characteristics Relating to Faculty/Staff (Questionnaire Category II) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Developmental Program Area With Ranks.....	113
32	Program Characteristics Relating to Costs/Resources (Questionnaire Category III) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Developmental Program Area With Ranks.....	114

LIST OF TABLES (continued)

Table	Page
33	Program Characteristics Relating to General Information (Questionnaire Category IV) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Developmental Program Area With Ranks..... 116
34	Information Profile of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Developmental Program Area..... 118
35	Distribution by Category of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Community Instructional Services Program Area..... 120
36	Program Characteristics Relating to Students (Questionnaire Category I) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Community Instructional Services Program Area With Ranks..... 121
37	Program Characteristics Relating to Faculty/Staff (Questionnaire Category II) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Community Instructional Services Program Area With Ranks..... 123
38	Program Characteristics Relating to Costs/Resources (Questionnaire Category III) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Community Instructional Services Program Area With Ranks..... 124
39	Program Characteristics Relating to General Information (Questionnaire Category IV) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Community Instructional Services Program Area With Ranks..... 126
40	Information Profile of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Community Instructional Services Program Area With Ranks..... 128

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The problem of the study was to identify measures of program quality as perceived by community college administrators through the determination of the degree of usefulness of various types of information (program characteristics) for program quality-evaluation decision making. The study was based on the Stufflebeam model of educational evaluation as the process of providing useful information for educational decision making.

The review of related literature on the Stufflebeam and other decision-oriented models of educational evaluation indicated that the determination of information useful in education decision making should be the responsibility of the decision maker, in this case the respective program administrator. Therefore, a survey research design was chosen for the study and a questionnaire was developed to measure

administrators' perceptions of the degree of usefulness of 434 program characteristics for program quality-evaluation decision making. A four point scale was used ranging from "essential" to "little or no usefulness."

The study population consisted of administrators with instructional or student services responsibilities as identified by study coordinators at each college. Responses were received from 450 administrators representing 24 of Florida's 28 community colleges with a response rate of 71.3%.

Using the mean ratings, ranks were calculated for each program characteristic for all respondents and for respondents classified into the five program areas (Advanced and Professional, Occupational, Developmental, Community Instructional Services, and Student Services). The upper quartile program characteristics as ranked by mean usefulness-ratings for all respondents and for respondents classified by program area were organized into information profiles of 11 types of information. Spearman rank-order correlation coefficients were calculated between the upper quartile of program characteristics for respondents in each program area.

The study concluded that community college administrators considered a wide variety of program characteristics as essential for program quality-evaluation decision making varying across program areas. The implication was made that quality assessment in the community college should be conducted by program area utilizing a multivariate approach.

CHAPTER I INTRODUCTION

Just as equity and access dominated the attention of those involved in higher education during the 60's and 70's, quality is most certainly going to emerge as the primary concern of the 1980's (Finn, 1980). In recent years, waning public confidence in higher education coupled with increased fiscal constraints placed academia in a dilemma. That dilemma fostered an emphasis on accountability that resulted in a proliferation of evaluation activities related to higher education. A major focus of those evaluation activities was on the maintenance and improvement of the quality of programs and services offered by higher education institutions within the context of broadening student access in a time of fiscal constraint (Craven, 1980).

Efforts to determine the quality of educational programs and services have drawn a great deal of attention from both within institutions and from state level governing bodies (Bowen, 1974; Craven, 1980). Many state government leaders have expressed the opinion that maintaining and improving quality is and will continue to be the leading issue in higher education ("Legislators Stress Quality Improvement," 1980). This attitude was reflected in the educational achievement goal recently adopted by the Florida State Board of Education:

On a statewide average, educational achievement in the state of Florida will equal that of the upper quartile of states within five years, as indicated by commonly accepted criteria of attainment. (Florida State Board of Education, January 20, 1981)

As with the terms equity and access, the words educational achievement and educational quality can mean all things to all people (King, 1981). If the terms are used loosely and given no definition, they provide little counsel. If, on the other hand, they are defined too closely, they possess at best limited use for the diverse system of higher education (Finn, 1980).

Philosophers to statesmen to scholars have attempted to define the concept of quality. In most instances, the results of their labors were an agreement that quality was a subjective judgment by an individual based, at least in part, on some supporting evidence (Lawrence & Green, 1980, p. 8). Researchers in higher education have noticeably refrained from providing a constitutive definition of educational quality but have, through research design and choice of various evaluative criteria, operationally defined the concept. The evaluative criteria include, among others, library resources (Cartter, 1966), quality of students (Astin & Henson, 1977), students' success (Krause & Krause, 1970), and faculty qualifications (Blackburn & Lingenfelter, 1973). Many of the more reputable studies of quality education have utilized numerous evaluative criteria in the determination of their quality rankings, but still represent a limited view of educational quality. This limited view of quality has "consistently identified 20 to 30 outstanding institutions, leaving them to vie with each other for the highest absolute rank in the hierarchical structure, and virtually ignoring the rest of our colleges and universities" (Lawrence & Green, 1980, p. 1).

The major innovative force in American higher education, the community college, has continually rated poorly, utilizing these traditional means of assessing quality (Bowen, 1974). Traditionally, academia has

utilized subjective evaluations by "experts" to evaluate the quality of an institution or its programs. The bases of those evaluations were inextricably tied to the missions and goals of those institutions which continually rated among the highest and, for the most part, ran in opposition to the missions and goals of the community college (Fotheringham, 1978). For this reason, present definitions of quality have little utility for the community college in demonstrating the quality of programs or services they offer to their constantly changing clientele.

Harlacher described the community college as a multipurposed institution designed to meet the needs of a constantly changing society (1969, p. 3). In attempting to meet these diverse needs, community colleges have committed themselves to five major purposes represented by the five major program areas of a comprehensive community college. These purposes include: preparation for advanced study (Advanced and Professional Program Areas), terminal, career-oriented studies (Occupational Program Areas), remedial and basic education (Developmental Program Area), various credit and non-credit community education programs (Community Instructional Services Program Area), and student development and guidance (Student Services Program Area)(p. 3). Each of these program areas serves a different clientele representing different needs, goals, and desires (Gleazer, 1980). It is these differences that make quality assessment in the comprehensive community college difficult. John Gardner (1971), former Secretary of Health, Education, and Welfare, summarized the diverse nature of the community college in relation to quality assessment in the following:

The traditionalists might say, of course, let Princeton create a junior college and one would have an institution of unquestionable excellence! That is correct, but it leads us down precisely the wrong path. If Princeton Junior College were excellent in

the sense that Princeton University is excellent, it would not be excellent in the most important way that a junior college can and may be excellent. It would simply be a truncated version of Princeton. A comparable meaningless result would be achieved if General Motors tried to add to its line of low-priced cars by marketing the front end of a Cadillac. (p. 33)

Gardner (p. 32) stated that if the community college is to maintain its diverse mission in an era of increased concern for quality that various aspects of this diversity should be honored. It was Gardner's opinion that diversity and quality were not mutually exclusive goals, rather a more flexible conception of quality was needed that allowed each program area to achieve quality in terms of its goals and objectives (p. 32).

The challenge facing higher education is to maintain and strengthen the quality of its programs . . . within relatively fixed resource constraints. Effective information decision systems are increasingly critical in enabling higher educational institutions to meet this challenge successfully. (Craven, 1975, p. 125)

The determination of educational quality, regardless of how quality is defined, involves decision making by program administrators. This decision-making process requires the use of some information about the program.

Stufflebeam, Foley, Gephart, Guba, Hammond, Merriman, and Provus (1971) viewed educational decision making as a process involving individual and organizational values interacting with various types of information and various options resulting in a decision or choices. Educational evaluation was viewed as a process by which information needed to make a particular decision was made available to the responsible decision maker. Stufflebeam et al. defined evaluation as "the process of delineating, obtaining, and providing useful information for judging decision alternatives" (1971, p. 40). In this light, evaluating the

quality of educational programs may be viewed as a process involving the identification of what information about a program is perceived as most useful to the responsible decision maker and presenting that information in a format useful for program quality-evaluation decision making. Utilizing this reference, quality-evaluation is not itself a determination of quality; that determination becomes a decision on the part of a responsible individual (Alkin & Fitz-Gibbon, 1975).

Stufflebeam et al. (1971) divided the evaluation process into three basic steps: delineating, obtaining, and providing. The delineating phase was the primary operational step and involved the identification of the most useful information. Stufflebeam et al. stressed the importance of input from the potential decision maker in the determination of pertinent evaluative information. Stufflebeam et al. stated that the determination of useful information "can be obtained by the evaluator only in interaction with his client [decision maker]" (p. 41). Alkin (1969) maintained a similar view of evaluation to that of Stufflebeam et al. and postulated that the process of selecting the appropriate information is the pivotal step in any evaluation process. This study focused on the delineation phase of evaluation in relation to one particular type of decision: the determination of quality. The basis of this study was the model of educational evaluation and decision making described by Stufflebeam et al. This model henceforth will be referred to as the Stufflebeam model of educational evaluation.

The Problem

The problem in the study was to utilize the Stufflebeam model of educational evaluation to identify measures of quality for use in Florida community colleges as indicated by administrators' perception of the

usefulness of various types of information (program characteristics) for program quality-evaluation decision making. The study viewed educational quality as a value judgement or decision on the part of an individual. This study was based on the Stufflebeam model of educational evaluation, in which the primary step is the delineation of information useful for educational decision making. The particular decision of concern in the study was the assessment of program quality with the responsible decision maker being the respective program administrator.

Specifically the study proposed to:

1. Identify what program characteristics were considered most useful for program quality-evaluation decision making by administrators in Florida public community colleges.

2. Identify what program characteristics were considered most useful for program quality-evaluation decision making for administrators representing the five program areas of a comprehensive community college. (See Appendix A for a description of the program areas.)

3. Develop information profiles consisting of the program characteristics considered most useful for program quality-evaluation decision making for each program area.

4. Determine if community college administrators representing the five program areas differed in the information they identified as most useful for program quality-evaluation decision making.

Need for the Study

The premise of the study was that a gap existed in the research concerned with the information requirements of administrators in the community college system of Florida who make program quality-evaluation decisions. With the rapid growth in the areas of data processing and

computerized management information systems, the process by which to deliver the information necessary for program quality-evaluation decision making is available. The gap lies in the determination of what information is considered most useful by various decision makers for their particular situations. The study was designed to identify the information needs of various decision makers in making program quality-evaluation decisions and to produce profiles of program characteristics to facilitate the quality-evaluation decision making process through the organization of timely and relevant information. These quality-evaluation information profiles will be especially suited for decision making in today's comprehensive community college.

Delimitations and Limitations

The study was confined to personnel in Florida's public community colleges who have some instructional or student personnel responsibilities and who are classified by their institutions as "Executive, Administrative, and Managerial personnel" under Part 3 of the "Personnel and Salary Report (SA-1)" in the Community College Management Information System Procedures Manual (Division of Community Colleges, 1980, pp. 10.1-10.2). The data were collected by means of a survey instrument (questionnaire) and represented the expressed opinions of the administrators being surveyed. The results of this study are descriptive of the situation in Florida's public community colleges, although the findings may be applicable to similar community colleges or community college systems in other parts of the nation.

Several factors limited this study:

1. Since an individual's attitudes and perceptions constantly change, the perceptions identified in this study were reflective only

of the time period during which this study was conducted.

2. The instrument utilized to gather information for the study was developed for this particular study. Some administrators may have responded to various items in terms of their understanding of the items as held by the researcher. Face validity for the questionnaire was established.

Definition of Terms

For the purpose of this study, terms used herein were defined as follows:

1. Evaluation - the process of providing timely and relevant information for decision making.

2. Program Quality-Evaluation Decision Making - the process, involving the use of relevant information, leading to a judgement of the quality of a program by a responsible administrator.

3. Program Areas - the five basic operational areas of a comprehensive community college in Florida including the four academic areas of Advanced and Professional, Occupational, Community Instructional Services, and Developmental, and the Student Services Program Area (Division of Community College, 1981b, p. 6). Each of these program areas is described in Appendix A.

4. Program Characteristic - any information relating to or describing a program or service of a community college.

5. Usefulness - the determination of the serviceability or utility of a program characteristic in making judgement about the quality of a program.

Organization of the Study

The study was organized into five chapters. Chapter I contained an introduction, definition of terms, a statement of the problem, and the delimitations and limitations of the study. Chapter II provided a review of related literature, including a discussion of the decision-making model of educational evaluation which was the basis of the approach to quality-evaluation used in this study. The second chapter also included a short discussion of higher education's attempts to address this illusive issue of quality. Chapter III provided a discussion of the development of the questionnaire and the methodology utilized in the study. Chapter IV presented the results of the study. Chapter V contained a summary of the study, the conclusions, and recommendations.

CHAPTER II REVIEW OF RELATED LITERATURE

In reviewing the literature in this area of quality education, two of the more discussed topics in higher education emerged for consideration: educational quality and educational evaluation. This chapter reviewed attempts to address the issue of quality in higher education. It also included a discussion of the concept of educational evaluation with special emphasis on the decision-oriented model of evaluation which was the basis for the methodology utilized in this study.

Educational Quality

† Quality . . . you know what it is, yet you don't know what it is. But that's self-contradictory. But some things are better than others, that is, they have more quality. But when you try to say what the quality is, apart from the things that have it, it all goes poof! There's nothing to talk about. But if you can't say what Quality is, how do you know what it is, or how do you know that it even exists? If no one knows what it is, then for all practical purposes it doesn't exist at all. But for all practical purposes it really does exist. What else are the grades based on? Why else would people pay fortunes for some things and throw others in the trash pile? Obviously some things are better than others . . . but what's the "betterness?" . . . So round and round you go, spinning mental wheels and nowhere finding anyplace to get traction. What the hell is Quality? What is it? (Pirsig, 1974, p. 184)

The quandary described by Pirsig provides an appropriate summary of the attempts to address the issue of quality in higher education. If by no other means, educators intuitively recognize a substantial variance in program and institutional quality among the diverse institutions that comprise the American system of higher education. Yet studies

conducted by different researchers for different reasons in different settings using different methodologies have resulted in a variety of quality attributes providing little assistance in operationally defining quality (Lawrence & Green, 1980).

During a recent Southern Regional Educational Board Symposium, SREB President W.L. Goodwin addressed the problem of defining quality:

- * a part of our problem in higher education is that too often we have confused quality with prestige We need to increase the understanding that quality education is not a monopoly of a few dozen universities in the nation, but is attainable by all types of higher education institutions. ("Legislators Stress Quality," 1980, p. 3)

Dr. Maxwell King, President of Brevard Community College in Florida, in a recent message to his faculty, made the following comments on educational quality:

Quality in education is not an absolute. It can only be evaluated in terms of arbitrarily determined standards, and these in turn depend partly on subjectively formulated aims and partly on objective statistical procedures Education is quality education to the extent that it meets the needs of the people being served. (King, 1981, p. 1)

- * These two quotes are representative of the general view of quality in higher education. That view is vague, subjective, and broad. On one hand, such a perspective on quality has limited use in that it provides little guidance for educational improvement. On the other hand, it is a perspective which maintains maximum flexibility, which is needed considering the diversity found in higher education today.

This section of the literature review is presented in three parts. The first part reviews the major reputational assessments of graduate programs. These studies have formed the basis of attempts to investigate the quality issue in higher education. The second part provides an overview of quality assessment at the undergraduate and two-year

college level. The final part reviews those studies designed to identify quantifiable indicators of quality.

Graduate Education

Beginning with Hughes (1925) and continuing through the prestigious American Council on Education (ACE) sponsored studies (Cartter, 1966; Roose & Anderson, 1970), reputational ratings of graduate programs have constituted the basis of attempts to address the issue of quality in higher education. The methodology incorporated in a vast majority of these studies involved a peer review, in which programs were rated by eminent faculty in the same discipline, as experts, and their ratings reflected the quality of graduate education and research in the system. These studies attempted to identify the outstanding research and teaching institutions by program and have consistently identified 20 to 30 institutions, virtually ignoring the balance of the system (Lawrence & Green, 1980, p. 2).

Using a panel of distinguished scholars from each field, Hughes (1925) conducted the first comprehensive reputational study of graduate programs. At the time of this study, only 65 American universities awarded the doctoral degree. Hughes ranked 38 of these universities in 20 graduate disciplines according to the number of outstanding scholars each employed. During the next decade the number of American universities awarding the doctoral degree had nearly doubled. This prompted a second Hughes study (1934) which ranked 59 universities in 35 disciplines according to the quality of facilities and staff for the preparation of doctoral candidates. The stated purpose of both of the Hughes studies was to educate undergraduate students about various graduate programs. These studies went well beyond this purpose in establishing

procedures for quality ratings including the identification of the nation's leading institutions through numerical ranks based upon the informal opinions of academicians.

For the next 20 years, the Hughes studies were regarded as authoritative. It was not until Keniston's (1959) work that an attempt was made to update or validate the Hughes studies. Using department chairmen selected from the institutional members of the American Association of Universities as raters, Keniston ranked 24 graduate programs based on a combined measure of doctoral program quality and faculty quality. These rankings were subsequently used to produce a rank-ordered list of the top 20 institutions which were compared with Hughes' results.

The major weakness of the Hughes and Keniston studies, according to Cartter (1966), was the geographical and rater biases which were not controlled. Other flaws in these studies noted by Cartter included the failure to distinguish measures of faculty quality from measures of educational quality, the failure to account for the biases of raters toward their alma maters, and the choice of department chairmen as raters. It was Cartter's opinion that the chairmen were not necessarily the most distinguished scholars, not typical of their peers in age, specialization, or rank and tended to be more conservative and thus to favor the traditional institutions.

These criticisms were accounted for in Cartter's design of the ACE studies in which great care was taken to assure the representation of various institutions and raters from all geographical areas. Cartter surveyed 106 institutions representing 1,163 graduate programs which resulted in rankings of 29 disciplines. The over 4,000 survey respondents included both senior and junior scholars as well as department

chairmen. The respondents were requested to rate each doctoral program in their area of study from an alphabetical list of the institutions on two components: quality of graduate faculty and effectiveness of the doctoral program. To support the representativeness of the raters, the respondents were requested to supply basic biographical information. The leading departments were ranked separately on the basis of the raters' responses on each of the components. In most disciplines, the rankings for each component were very similar. Whenever the discipline areas overlapped, Cartter compared his ratings with those of Hughes (1925) and Keniston (1959).

Cartter also compared his ratings with various objective measures. He found that his rankings correlated highly with Bowker's (1964), who used enrollment of graduate award recipients in institutional programs as a criterion. Cartter found a high correlation between his ratings and other institutional measures such as faculty salaries, library resources, and publication indices. Cartter used these relationships as a primary point in his argument supporting peer ratings for quality assessment.

Cartter was not willing to aggregate departmental ratings to produce institutional ratings as was done by Hughes and Keniston. It was Cartter's opinion that this was inappropriate for three reasons. First, not every institution considered offered doctorates in every field. Second, it was impossible to assign weights to the various fields. Third, various departments represented various specializations within a field and as such were difficult to weight (Cartter, 1966).

Cartter's study was the premier work until 1966 in the area of quality assessment in higher education. Realizing that the continuous

changes in higher education would result in changes in the rankings of institutions in various fields, Cartter committed himself to do a five-year follow-up study. The 1970 ACE-sponsored Roose-Anderson study fulfilled this commitment by essentially replicating Cartter's study. The Roose-Anderson study ranked 130 institutions across 29 disciplines utilizing Cartter's methodology. The ratings were based on the same two components Cartter used in 1966: quality of graduate faculty and effectiveness of the doctoral program.

The Roose-Anderson (1970) study, through its omission of the word "quality" from its title, represented a change in the philosophy of quality assessment studies:

Since it is evident . . . that the appraisal of faculty and programs as reflected by their reputations rather than as they partake of specific components of an amorphous attribute called 'quality,' we have resolved to use as a title simply a description of the book's contents, *A Rating of Graduate Programs*. (p. xi)

The Roose-Anderson report presented a range of raters' scores rather than absolute raw departmental scores and spoke in terms of quality ranges instead of specific institutional rankings. Even with this apparent change in philosophy, the results of the Roose-Anderson study were very similar to Cartter's (1966) study.

Although both ACE-sponsored studies refrained from and discouraged the aggregation of departmental scores into overall institutional ratings, other researchers (Magoun, 1966; Morgan, Kearney, & Regens, 1976; National Science Foundation, 1969; Petrowski, Brown, & Duffy, 1973) were quick to report such aggregations. Using the reputational rating procedures refined by the ACE studies, other researchers produced similar program or institutional rankings based on the two ACE criteria or other similar criteria (Carpenter & Carpenter, 1970; Cartter & Solmon,

1977; Cole & Lipton, 1977; Cox & Catt, 1977; Gregg & Sims, 1972; Margulies & Blau, 1973; Munson & Nelson, 1977).

Lawrence and Green (1980) gave considerable attention to weaknesses in reputational ratings, the most apparent being their lack of agreement on the meaning of quality. The definition of quality appeared to be dependent upon the discipline, the program area, and the individual rater. The lack of agreement on defining quality appeared to make program or institutional comparisons nonsensical. Lawrence and Green expressed the opinion that higher education was far too intricate to rank solely on the basis of one or two dimensions. "To measure them (institutions) all by the same yardstick is to do a disservice not only to the higher education system but also to prospective students and to the public as a whole" (p. 53).

Many of the criticisms ascribed to the reputational rating approach involved several forms of rater bias. The first form was commonly referred to as a "halo effect" in which a rater's opinion of a particular program was based primarily on the prestige of the institution as a whole and not on the particular program in question. The halo effect worked in reverse when a particular department's reputation lagged behind depending upon the institution within which it was located. A second form of rater bias involved the "alumni effect" in which the raters tended to give high scores to their respective alma maters. This effect was compounded by the fact that the largest departments also produced the largest number of raters. A third rater bias reflected an institution's size or age in reputational ratings (Lawrence & Green, 1980, pp. 8-10).

Dolan (1976) criticized the reputational approach because of its tendency to restrict change and innovation through maintenance of the

status quo. Dolan expressed the opinion that subjective ratings of program quality reflected elitist and traditionalist views of higher education which stifled or restricted diversity including experimental programs and multi-dimensional approaches. Dolan believed that with the increasing consumer awareness in higher education, students should be involved in any attempts to rate graduate programs.

One advantage of reputational ratings as a method of assessing institutional quality was that those who should know best about academic quality of a particular program or discipline could be and were often utilized as raters. Another point in support of this methodology was that the process usually produced results with a high degree of face validity in that those programs or institutions that the educated general public considered to be "quality" were often identified (Webster, 1981).

Blackburn and Lingenfelter (1973) defended the ACE reputational ratings on the following grounds:

(1) Panel bias has been largely eliminated by the careful selection procedures of the ACE studies; (2) subjectivity cannot be escaped in evaluation no matter what technique is used; (3) professional peers are competent to evaluate scholarly work, the central criterion in reputational studies; and (4) although not a sufficient condition of general excellence, scholarly ability is necessary for a good doctoral program. (p. 25)

Lawrence and Green (1980) summarized their opposition to reputational rankings as follows:

The unfortunate consequences of this situation are perhaps more attributable to the higher education community's competitiveness, the mass media's lust for sensational headlines, and the American public's obsession with knowing who's at the top, than to any fault of the studies themselves. Despite their repeated cautions against aggregating departmental scores to produce institutional scores and their constant reminders that the ratings represent the subjective judgments of faculty and that they probably reflect prestige rather than quality, scores do get aggregated, institutions do get compared with one another, and high

prestige is translated to mean educational excellence. As a result, research and scholarly productivity are emphasized to the exclusion of teaching effectiveness, community service, and other possible functions; undergraduate education is denigrated; and the vast number of institutions lower down in the pyramid are treated as mediocrities, whatever their actual strengths and weaknesses. (pp. 15-16)

One other study of graduate education quality more in line with the approach taken in this project was conducted under the sponsorship of the Council of Graduate Schools and the Educational Testing Service (Clark, Hartnett, & Baird, 1976). A sample of 73 departments equally divided among three fields—psychology, chemistry, and history—was surveyed with the purpose of determining ways to assess quality. Four major conclusions resulted from the study. First, timely, relevant, and useful information (program characteristics) related to educational quality could be reasonably obtained. Second, approximately 30 program characteristics were identified as especially useful. Third, these program characteristics appeared to be applicable across diverse program areas. Fourth, two clusters of program characteristics were identified: research-oriented and educational experience indicators. The research-oriented indicators included department size, reputation, physical and financial resources, student ability, and faculty publications. The educational experience indicators were concerned with the educational process and academic climate, faculty interpersonal relations, and alumni ratings of dissertation experiences.

The Clark et al. study used faculty, student, and alumni input in a separate peer-rating component of the study similar in approach to the ACE studies. The most interesting finding of this component of the study was that reputational ratings of graduate programs had little relationship to teaching and educational effectiveness as measured by the

input of the students and alumni. Clark et al. concluded that the peer ratings were based primarily on scholarly publications with little or no emphasis on the quality of instruction.

Undergraduate Education

Although considerably fewer studies have been conducted designed to assess quality at the undergraduate level than at the graduate level, those studies rating undergraduate education have demonstrated that colleges differ substantially in the more traditional measures of quality. Jordan (1963), in a study involving 119 undergraduate programs, found that those institutions which spent more on salaries for library staff and had higher numbers of library volumes per student tended to score higher on a quality index based upon multiple weighted factors. Brown's (1967) study of undergraduate education ranked colleges on the basis of eight criteria including total current income per student, proportion of students entering graduate school, proportion of graduate students, number of library volumes per student, total number of full-time faculty, faculty-student ratio, proportion of faculty with doctorates, and average faculty compensation. These two studies represented approaches to undergraduate quality assessment similar to those utilized for graduate programs. Lawrence and Green (1980) expressed the opinion that these and similar studies (Dube, 1974; Krause & Krause, 1970; Tidball & Kistiakowski, 1976) which used quality measures more typically associated with graduate quality assessment (e.g., publication record of students, percent of students who finish professional schools, or terminal graduate degrees, etc.) failed in their purpose because they did not take into account the "special nature of the undergraduate experience" (p. 33).

Astin, through a series of studies (1965, 1971; Astin & Henson, 1977) approached one specific aspect of undergraduate quality which he termed the selectivity index. Astin (1971) defined the selectivity index as a relative measure of the academic ability of a college's entering freshmen (pp. 1-2). In another study involving the selectivity index, Astin and Henson (1977) used ACT and SAT scores to approximate the selectivity of all accredited two- and four-year institutions. Astin and Henson defended this approach on the basis of its acceptance by the mainstream of faculty and administration in higher education (p. 2). The validity of this approach was supported by its correlations with selected institutional characteristics such as student-faculty ratios (Astin & Solmon, 1979).

In a related study, Astin further developed the selectivity index by examining the preferences of academically talented students for various institutions (Astin & Solmon, 1979). Realizing that this measure was confounded by a number of variables such as institutional popularity and regionalism, Astin and Solmon still maintained that a measure of an institution's drawing power for highly able students was a valid quality measure (p. 49).

In a later study of undergraduate education quality, Astin and Solmon (Astin & Solmon, 1981; Solmon & Astin, 1981) expanded their view of quality to multiple criteria. This study utilized faculty members representing seven disciplines from institutions in four states (California, Illinois, New York, and North Carolina) who were requested to rate institutions from two lists: a national list and a state list. The state list included those institutions in the rater's state which awarded a minimum of five undergraduate degrees in the rater's field during 1977.

The national list was composed of 100 of the "most visible institutions in the rater's field" (Astin & Solmon, p. 14). Each rater was asked to evaluate each institution from both lists according to six quality criteria including overall quality of undergraduate education, preparation of students for graduate and professional school, preparation of students for employment after college, faculty commitment to undergraduate teaching, scholarly or professional accomplishments of faculty, and innovativeness of curriculum and pedagogy (Solmon & Astin, p. 24).

Utilizing a factor analysis of the mean ratings on each of the quality criteria for each of the undergraduate disciplines, Astin and Solmon (1981) concluded that

these ratings showed that the seven fields form a single "overall quality" dimension. In practical terms, this means that quality differences among fields at a given institution tend to be minimal, and that ratings of one department may suffice as an estimate of the quality in the other departments at the institution. (pp. 14-15)

Considering the limited view of quality expressed in the choice of the six quality criteria used in the study, the conclusion appeared warranted.

Probably the best known studies of undergraduate quality, the Gourman studies (1967, 1977), provided little or no explanation of the procedures used to arrive at the reported ratings. Scores on two sets of variables—strength of the institution's academic departments and quality of non-departmental areas—were averaged to produce an average academic departmental rating and an average non-departmental rating and an overall "Gourman rating" for each institution.

Although the Gourman ratings have been accepted as a measure of undergraduate study, many of the assumptions in these ratings were questionable. Gourman assumed that 10 years were required following

graduation to produce an excellent classroom teacher and thus rated older faculty higher. Gourman gave equal weight to faculty effectiveness, public relations, library, a college's alumni association, and the athletic-academic balance as measures of institutional quality. Gourman held a bias toward larger institutions, consistently rating them higher than smaller liberal arts colleges (Lawrence & Green, 1980). In 1977, Gourman changed the format of his ratings, making them similar to that of the 1970 Roose-Andersen study. In his 1977 study, Gourman rated 68 undergraduate programs, again providing no information on the procedures used in developing the ratings.

Utilizing approaches such as those discussed previously, other researchers have attempted to address the issue of undergraduate quality (Johnson, 1978; Nichols, 1966; Solmon, 1975). Other, possibly less academic, attempts to evaluate undergraduate quality included the popular college guides (e.g., Hawes Comprehensive Guide to Colleges, 1978). Webster (1981) criticized many of these attempts on the basis of their limited view of the undergraduate experience. Central to this criticism was the lack of emphasis on undergraduate teaching in preparation for the job market and the overriding view of undergraduate programs serving primarily as preparatory periods for graduate study.

Very little research has been conducted in the community/junior college setting in relation to the quality issue. In general, many of the premises underlying traditional views of quality in higher education run in opposition to the basic principles of the community college philosophy. An example of this is the discrepancy between the selectivity index (Astin & Solmon, 1979) and the "open door" admission policy of the community college. One of the more quoted studies which addressed the

issue of quality in the community college involved the identification of quality indicators from peer opinions expressed in evaluations of selected junior colleges during accreditation team visits (Walters, 1970). Walters identified 58 specific indicators from a list of 516 recommendations made by visiting accreditation teams to 126 public junior colleges over the period of 1960-1969. Most of the indicators related to college procedures, the efficiency of operations, staffing levels, and organizational structure. Walters postulated that the 58 indicators taken collectively described a quality public junior college although only two of them were based on any specific quantitative measures. One other study of educational quality in the two-year college, the Pike study (1963), involved an analysis of the relationship of current expenditures, enrollment, and expenditure per student to certain variables associated with educational quality in junior colleges in Texas.

Quantifiable Approaches to Quality

In recent years, higher education researchers have explored numerous ways of providing objective measures of educational quality. Many of these attempts have involved correlating various objective quantifiable measures with established rankings of institutional quality. These quantifiable measures include, among others, institutional size (Elton & Rose, 1972; Hagstrom, 1971), research productivity (Drew, 1975; Wispe, 1969), publication productivity (Lewis, 1968), amount of money spent (Ousiew & Castetter, 1960), and number of library volumes (Lazarsfield & Thielens, 1958). Many of these "correlates of prestige" (Lawrence & Green, 1980, p. 23) used the popular ACE ratings as their basis for comparison. Cartter (1966), anticipating the identification of quantifiable quality indicators in his ratings, stated that such indicators "are for the most part subjective measures once removed" (p. 4).

The list of factors which significantly correlated with reputational quality ratings was lengthy. Differentiating between a correlational relationship and causation, Blackburn and Lingenfelter (1973) listed the following items as being positively correlated with the 1966 ACE ratings:

1. Magnitude of the doctoral program.
2. Amount of federal funding for academic research and development.
3. Non-federal current fund income for educational and general purposes.
4. Baccalaureate origins of graduate fellowship recipients.
5. Baccalaureate origins of doctorates.
6. Freshman admissions selectivity.
7. Selection of institutions by recipients of graduate fellowships.
8. Postdoctoral students in science and engineering.
9. Doctoral awards per faculty member.
10. Doctoral awards per graduate student.
11. Ratio of doctorate to baccalaureate awards.
12. Compensation of full professors.
13. The proportion of full professors on a faculty.
14. Higher graduate student-faculty ratios.
15. Departmental size of seven faculty members or more. (p. 11)

Fotheringham (1978) described traditional quality indicators as including context, faculty input, faculty-student interaction, and student input. Fotheringham defined context as "the setting for the educational process" (p. 17). The context variables included such things as number of library volumes, administrative policies, and physical facilities. Pike (1963), in his study of the relationship between 72 variables associated with educational quality and enrollment, current expenditures, and expenditure per student, found expenditures to be the most important measure of context. Banghart, Krprayoon, and Clewell (1978) identified other context variables including curriculum, administrative practices, and amount of external funding.

Meder (1955) defined faculty input as including the instructor's training, skill, ability, and morale. Blackburn and Lingenfelter (1973) included degrees, awards, faculty compensation, and post-doctoral studies

as indicators of faculty input. Other faculty input indicators included research productivity (Hagstrom, 1971), publication productivity (Cox & Catt, 1977), and faculty size (Balderston, 1970). The most difficult indicators of faculty input to measure were faculty morale, vigor, cohesion, and progressiveness, which Balderston (1974) suggested could only be subjectively measured.

Faculty-student interaction has been traditionally defined as the faculty-student ratio (Meder, 1955). This view has been expanded to include the accessibility of the faculty (Roose & Anderson, 1970) as well as the extent and nature of the faculty contact with students (Fotheringham, 1978).

Student input indicators of quality have often been held as the most valuable type of indicator. Student input has been defined as the characteristics of the student at the time of admission (Fotheringham, 1978). Blackburn and Lingenfelter (1973) proposed a more comprehensive definition simply as the students' quality. Many researchers have concluded that not enough has been done to control for variations in student input indicators when measuring various outcome indicators of quality (Richards, Holland, & Lutz, 1966; Rock, Centra, & Linn, 1969).

Fotheringham (1978) identified three more categories of quality indicators, labeling them output, student change, and intellectual climate. Output was described as including both faculty output (publications and other productivity measures) and student output (accomplishments of students following graduation). The variability in the specific measures used to assess these output indicators was reflected in the work of Keller (1969) and Lawrence, Weathersby, and Patterson (1970).

The student change or student development indicators attempted to assess the extent of learning that took place during the students' enrollment (Turnball, 1971). Ostar (1973) described this as the value-added concept. It was his opinion that in assessment of the development of a student, in both the cognitive and affective domains, specific attention should be given to both the student's initial abilities and the student's goals (Ostar, 1973). Measures of student change identified by Ostar included post-graduate employment, personal achievements, motivation, and achievements in graduate school.

Fotheringham (1978) defined intellectual climate as "an attitude toward learning and scholarship shared by students, faculty and administration" (p. 26). Several researchers have expressed the opinion that campus climate is of primary importance in assessing institutional quality (Astin, 1963; Boyer, 1964; Bowen, 1963). Indicators in this category included both academic attributes, such as faculty concern for scholarship, and non-academic attributes such as student's residential experience, democratic participation of the students in campus affairs, and counseling or other supplementary services.

Educational Evaluation

During the past decade, evaluation in education has become a topic of broad scope. It has been the failure of many educators to recognize that evaluation is a process of immense complexity, thus requiring examination in its broadest perspective (Alkin, 1969). Pyatte (1970) emphasized the importance of evaluators in education looking beyond the immediate problems and contemplating the intricate meanings and legitimate functions that embody evaluation theory.

The dynamics of evaluation compel attention from many vantage points. This section of the literature review is presented in three parts. The initial part introduces the concept of educational evaluation through a discussion of various definitions of educational evaluation. The second part provides a brief review of educational evaluation from a broad perspective with special attention given to contemporary models of educational evaluation. The third part discusses the decision-oriented model of educational evaluation which was the basis for this study's approach to the quality issue.

Toward a Definition of Educational Evaluation

There are numerous definitions of educational evaluation in vogue today. These definitions differ in level of abstraction and often reflect the specific concerns of the people who formulated them. At the basic level, evaluation has been defined as the assessment of merit (Popham, 1975, p. 8). Wolf (1979) found this definition in need of further clarification as to the meaning of the terms assessment and merit.

A more descriptive definition was offered by Cronbach (1963), who defined evaluation as "the collection and use of information to make decisions about an educational program" (p. 539). This definition of evaluation was proposed initially during the curriculum development era of the late fifties. Cronbach's studies suggested various kinds of information that could be examined within the evaluation framework and later analyzed and used in decision making designed for course improvement (Wolf, 1979).

Doll (1970) defined educational evaluation as "a broad and continuous effort to inquire into the effects of utilizing educational

content and process according to clearly defined goals" (p. 361). In terms of this definition, educational evaluation had to transcend the levels of simple measurement techniques or the primary application of the evaluator's values and beliefs. If evaluation was to be a comprehensive and continuous effort, it had to depend on "a variety of instruments which are used according to carefully ascribed purposes" (Doll, 1970, p. 380).

Beeby proposed an extended definition of evaluation as "the systematic collection and interpretation of evidence, leading, as a part of the process, to a judgment of value with a view to action" (Wolf, 1979, p. 117). Wolf (1979) developed the important elements of the definition. First, the term systematic implied that information needed would be defined with precision and obtained in an organized fashion. The second element, the interpretation of evidence, emphasized the role of critical judgment or consideration in the evaluation process. Wolf stated that this element was often neglected in evaluation activities. The third element of Beeby's definition described by Wolf involved the judgment of value. This required the evaluator to be responsible for making judgments from his or her evaluative work about the worth of an educational endeavor. The last element, with a view to action, introduced the notion that an evaluative undertaking should be designed deliberately for the sake of future action (pp. 117-124).

Pyatte (1970) emphasized the importance of a rational plan element in the definition of educational evaluation. He stated that "evaluation is the deliberate act of gathering and processing information according to some rational plan the purpose of which is to render, at some point in time, a judgment about the worth of that on which the

information is gathered" (p. 360). According to Pyatte, six elements are included: the agent, the object, the inputs, the plan, the time, and the product.

In defining evaluation, Bloom, Hastings, and Madaus (1971) discussed the purpose of educational evaluation as:

1. A method of acquiring and processing the evidence needed to improve the student's learning and the teaching;
2. Including a great variety of evidence beyond the usual final paper and pencil examination;
3. An aid in clarifying the significant goals and objectives of education and as a process for determining the extent to which students are developing in these desired ways;
4. A system of quality control in which it may be determined at each step in the teaching-learning process whether the process is effective or not, and, if not, what changes must be made to ensure its effectiveness before it is too late; and
5. A tool in education practice for ascertaining whether alternative procedures are equally effective or not in achieving a set of educational ends. (p. 8)

The obvious variety in definitions of educational evaluation stemmed from the fact that three different schools of thought have co-existed for over 30 years (Worthen & Sanders, 1973). Stufflebeam et al. (1971) provided an excellent discussion of three basic definitions of educational evaluation from which most others have developed. The first definition was an early one equating evaluation with measurement (p. 10). The second definition involved the determination of the congruence between performance and objectives, especially behavioral objectives (p. 11). The third definition was the process commonly referred to as professional judgment (p. 13).

Many other definitions of educational evaluation have emerged in recent years. The most popular have been those in which evaluation has been viewed as "a process of identifying and collecting information to assist decision makers in choosing among available decision

alternatives" (Worthen & Sanders, 1973, p. 20). An expanded discussion of this definition of educational evaluation is presented in the final part of this section of the literature review.

Contemporary Models of Educational Evaluation

With the increased call for accountability in educational institutions, the body of literature on educational evaluation has expanded rapidly in recent years. Many models of educational evaluation have emerged. There have been numerous attempts to categorize the array of evaluation models, the most comprehensive of which were done by Stufflebeam et al. (1971), Worthen and Sanders (1973), Anderson, Ball, and Murphy (1975), and Gardner (1977). The more prominent of these educational evaluation models included the measurement model, the congruence model, the professional judgment model, the goal-free model, and the decision-oriented model (Gardner, 1977).

The measurement model of evaluation as described by Gardner (1977) equated evaluation with measurement (p. 575). In this model, evaluation was viewed as the science of instrument development and interpretation (p. 576). The use of measurement instruments results in scores on other indices which are mathematically and statistically manipulated so that masses of data can be handled and comparisons done of individual or group scores with established norms (Stufflebeam et al., 1971, pp. 10-11). The model has been widely used and is illustrated by the use of SAT and GRE scores. Gardner (1977) further described the model as being based on the assumption that the phenomena to be evaluated have significant measurable attributes and that instruments can be designed which are capable of measuring these attributes.

Perhaps no other theory of evaluation has received more attention in recent evaluation literature, especially in its application for the classroom, than the congruence model. The origin of this model was most closely associated with the work of R.W. Tyler (1950). Tyler stated that educational objectives were essentially defined in terms of expected changes in human behavior. It followed that evaluation was the process for determining the degree to which changes in behavior actually took place. Gardner described this model as:

the process of specifying or identifying goals, objectives or standards of performance; identifying or developing tools to measure performance; and comparing the measurement data collected with the previously identified objectives or standards to determine the degree of discrepancy or congruence which exists. (p. 577)

Probably the most widely used but least discussed model of evaluation is the so-called professional judgment model (Stufflebeam et al., 1971, p. 3). In this model, evaluation is professional judgment. Values or criteria which form the basis of the judgment may or may not be explicitly stated. Often a commonly shared value system is assumed (Gardner, 1977, p. 574). Examples of the uses of this model include the judgments of visiting teams of professionals in the accreditation process and the use of peer review panels for various programs such as faculty committees passing judgment on promotion or tenure (Worthen & Sanders, 1973, pp. 126-127).

The goal-free concept is a recent addition to the body of knowledge on educational evaluation. This model, originally proposed by Scriven (1972, 1973), argued that if the main objective of evaluation was to assess the worth of outcomes, then no distinction should be made between intended versus unintended outcomes and that an evaluation should be conducted without reference to a program's goals or objectives.

(Gardner, 1977, p. 583). The evaluation was not totally goal-free, but standards for comparison could be chosen from a wider range of possibilities than those which might be prescribed by a program's objectives (p. 584). The final outcome of the evaluation "should be accurate, descriptive, and the interpretative information relative to the most important aspects of the actual performance, effects, and attainments [of the program being evaluated]" (p. 585).

All of the previous models of evaluation are similar in that they include reference to the use of information and some judgment made in relation to this information. The models vary in the emphasis placed on these areas. Gardner discussed the merits and shortcomings of each of these models and proposed that each one had advantages depending upon the specific circumstances in which the evaluation occurred.

A brief guide to selecting an appropriate model, or a combination of models, was given by Gardner. He suggested that in situations where a high degree of objectivity is not required, time is short, a simple evaluation is desired, and expert human resources are available, then the professional judgment model might be most appropriate. In situations where high objectivity, reliability, and comparability are required, where mathematically manipulative results are desired, where relevant measurable attributes can be identified, and valid and reliable instruments can be designed and used, then the measurement approach might be most appropriate. In situations where goals are a primary concern, specific objectives or criteria of performance can be identified, and valid ways to assess performance can be devised and applied, then the use of a congruency model might be most appropriate. Finally, in situations where all observable effects are potentially of value,

human concerns are highly valued, a relatively high degree of objectivity is not required, and the situation is highly fluid or lacking well-defined goals or objectives, then a goal-free model might be most appropriate (pp. 591-592).

Decision-Oriented Model of Educational Evaluation

Stufflebeam and the Phi Delta Kappa National Study Committee have been credited with the refinement of what Gardner referred to as the decision-oriented model of educational evaluation. In this model, "evaluators collect information and communicate this information to someone else" (Alkin & Fitz-Gibbon, 1975, p. 1). The process by which this information is collected is systematic and deliberate, an attempt to obtain an unbiased assessment upon which to base an evaluation (Alkin & Fitz-Gibbon, 1975; Guba, 1975; Stufflebeam, 1969).

In this model the results of evaluation are directed toward those individuals who are "intimately connected with the program being evaluated" (Alkin & Fitz-Gibbon, p. 1) or the administrative decision makers (Gardner, 1977; Guba, 1975; Stufflebeam, 1974; Stufflebeam et al., 1971). In this context, the role of the evaluator is to collect and present summary information to decision makers (Alkin & Fitz-Gibbon, p. 5). The decision-oriented model was designed to benefit decision makers. The evaluators collect and present the information needed by someone else who determines its worth. "Decision-facilitation evaluators view the final determination of merit as the decision maker's [individual's] province, not theirs" (Popham, 1975, p. 25).

Alkin (1969) viewed the decision-oriented model as a process consisting of four steps. These steps included determining the areas of concerns for possible decisions, determining the appropriate data,

collecting and analyzing the data, and reporting the summary information in a form useful for the decision makers. These steps were condensed and described by Stufflebeam et al. in their definition of educational evaluation as "the (process) of (delineating), (obtaining), and (providing)(useful)(information) for judging)(decision alternatives)" (p. 40). This statement contained eight elements, set off by parentheses, each of which had significant implications for the process and techniques of evaluation. They were defined as follows:

1. Process. A particular and continuing activity subsuming many methods and involving a number of steps and operations.
2. Decision alternatives. Two or more different actions that might be taken in response to some situation requiring altered action.
3. Information. Descriptive or interpretive data about entities (tangible or intangible) and their relationships, in terms of some purpose.
4. Delineating. Identifying evaluative information required through an inventory of the decision alternatives to be weighed and the criteria to be applied in weighing them.
5. Obtaining. Making information available through such processes as collecting, organizing, and analyzing and through such formal means as measurement, data processing, and statistical analysis.
6. Providing. Fitting information together into systems or subsystems that best serve the purposes of the evaluation, and reporting the information to the decision maker.
7. Useful. Satisfying the scientific, practical, and prudential criteria of Chapter I [internal validity, external validity, reliability, objectivity, relevance, importance, scope, credibility, timeliness, pervasiveness, and efficiency] and pertaining to the judgmental criteria to be employed in choosing among the decision alternatives.
8. Judging. The act of choosing among the several decision alternatives; the act of decision making. (Stufflebeam, et al., 1971, pp. 40-43)

Stufflebeam et al. contended that evaluation was an extension of the decision-making process. In this process, the evaluator assisted the decision maker during each step of the decision process. The evaluator assisted the decision maker by helping to delineate the information which was needed, by providing that information, and by

assisting the decision maker in the interpretation of the information. Each of these tasks was performed in conjunction with each step of the decision-making process (awareness, design, choice, and action) for all types of decision questions (planning, structuring, implementing, and recycling) in different decision settings (homeostatic, incremental, metamorphic, and neomobilistic)(pp. 49-103).

Utilizing this orientation, Stufflebeam et al. developed what is commonly referred to as the Context-Input-Process-Product (CIPP) model of educational evaluation. The model discriminated between the different settings in which decisions are made. In homeostatic settings, decisions involved the maintenance of internal balance in an educational setting. Decisions that denoted developmental activity, which had as their purpose the continuous improvement of a program, occurred in incremental settings. Neomobilistic settings were characterized by large innovative efforts to solve significant problems. The metamorphic decision-making setting was represented by "utopian activity intended to produce complete changes in an educational system based upon full knowledge of how to effect the desired changes" (Worthen & Sanders, 1973, pp. 131-132).

The CIPP model, in addition to identifying the four decision settings, also distinguished four classes of educational decisions, each of which was serviced by a particular type of evaluation. The four classes of decisions were planning decisions for determining objectives, structuring decisions for designing procedures, implementing decisions for utilizing, controlling, and refining procedures, and recycling decisions for judging and reacting to attainments (Stufflebeam et al., 1971, pp. 80-84). Corresponding to these four classes of

decisions were four types of evaluations—context, input, process, and product—which provided the acronym for this model (p. 218).

In the CIPP model, context evaluation assisted the decision maker in the determination of program objectives (Gardner, 1977, p. 581). It defined the relevant environment of the program, described the desired and actual conditions pertaining to that environment, identified unmet needs and unused opportunities, and diagnosed the problems that prevent needs from being met and opportunities from being used (Stufflebeam et al., 1971, p. 218). Input evaluation provided information for determining how to utilize resources to meet program goals (p. 222). Process evaluation performed the service of providing periodic feedback to persons responsible for implementing plans and procedures (p. 229).

Product evaluation served the purpose of providing information for assessing and interpreting program objectives, whether at the end of a program cycle or at intermediate points relating to decisions to continue, modify, terminate, or repeat certain program activities (Gardner, 1977, p. 581). In design, the result of the CIPP model was a continuous flow of systematically collected, timely, and relevant information for decision makers who have the responsibility of interpreting the information provided. In contrast, Alkin and Fitz-Gibbon (1975) suggested that it was the information itself, from a well-designed evaluation, that would pass judgment.

In general terms, Stufflebeam (1969) viewed evaluation as the science of providing information for decision making. The assumption was made that the ultimate goal of the decision-making process was educational improvement. Educational improvement implied changes resulting

from choices selected by decision makers from various alternatives. The process of decision making or choosing among options was firmly rooted in the decision maker's and organization's value system. In this framework, valid and reliable information was necessary to facilitate the decision maker's judgment of the degree to which various options measured up against a personal or organizational value system (Stufflebeam et al., 1971, p. 38).

Stufflebeam (1968) summarized the rationale for the model in the following statements:

1. The quality of programs depends upon the quality of decisions in and about the programs.
2. The quality of decisions depends upon decision maker's abilities to identify the alternatives which comprise decision situations and to make sound judgments about these alternatives.
3. Making sound judgments requires timely access to valid and reliable information pertaining to the alternative.
4. The availability of such information requires systematic means to provide it.
5. The processes necessary for providing this information for decision making collectively comprise the concept of evaluation. (p. 6)

The University of California at Los Angeles Center for the Study of Evaluation (CSE) developed a model of evaluation similar to the CIPP model (Alkin, 1969). The CSE model defined evaluation as the process

of ascertaining the decision areas of concern, selecting appropriate information, and collecting and analyzing information in order to report summary data useful to decision makers in selecting alternatives. (Gardner, 1977, p. 580)

The CSE model is similar to the CIPP model except that the former reconceptualized what Stufflebeam et al. (1971) referred to as process evaluation (Popham, 1975). The CSE approach differentiated among the kinds of decisions that are made at five identified stages:

1. Needs Assessment: The initial stage focuses on the provision of information regarding the extent to which educational programs are meeting their objectives.

2. Program Planning: This stage provides information regarding the sorts of instructional programs that meet the pre-determined needs.
3. Implementation Evaluation: The third stage provides information on the degree to which the instructional program is actually being carried out in accordance with the program plan.
4. Progress Evaluation: This stage provides information regarding the extent to which the planned program is achieving its objectives.
5. Outcome Evaluation: This stage emphasizes the provision of information regarding the general worth of the program as reflected by the outcomes it produces. (Popham, 1975, p. 38)

An important feature of the CSE model was that its proponents developed a wide range of instructional materials and other resources to familiarize educators with this approach. Thus, the CSE model has influenced actual evaluation practice as much as any of the previous models presented (Popham, 1975).

Provus (1971) developed an approach to evaluation in which the discrepancies between established standards and actual performance were closely observed. Provus described his evaluation model as including five stages: design, installation, process, product, and cost. He asserted that "on the basis of the comparisons made at each stage, discrepancy information is provided to the program staff, giving them a rational basis on which to make adjustments in their program" (p. 46).

The influence of the decision-oriented models of educational evaluation provided some of the impetus for the recent development of management information or decision information systems in higher education. Craven (1975) described a decision information system as "any method that provides the right decision-maker with the right information in the right form at the right time so as to facilitate the decision-making process in pursuit of organizational and/or personal goals and objectives" (p. 127). Craven went on to say:

information—if it is to be useful—must be relevant, intelligible, and timely . . . [and] every effort should be made at the outset to secure the full support and participation of top level decision makers in order to ensure an appropriate analysis of decision-making activities and resulting information requirements. (pp. 127-132)

Craven expressed the opinion that "the process by which information requirements are identified and defined is, perhaps, the most important phase of information system development" (p. 132). Craven summarized his case for decision information systems with the following statements:

Information that responds to those decision-making needs in a valid, reliable, and timely manner will assist higher educational institutions during this period in making decisions that will maintain and strengthen the quality of its programs and faculty and that will enable them to meet the future educational needs of students, society, and scholarship. (p. 138)

In summary, the decision-oriented model of evaluation involves "a continual exchange between evaluators and administrators regarding information needs . . . and a continuous flow of systematically collected, timely, and relevant information to satisfy those needs" (Gardner, 1977, p. 582). During this process, the evaluator should maintain continual communication with the appropriate administrator regarding what information is needed and in what format for each decision.

Summary

In this chapter, selected related literature in the areas of quality assessment and educational evaluation has been reviewed. Lawrence and Green (1980) summarized higher education's attempts to assess quality as subjective attempts to identify the best institutions. Whether or not these attempts were based on peer review or the utilization of a traditionally-based set of quantifiable indicators (which generally correlate highly with each other and with peer reviews), they simply ignored a vast majority of the nation's institutions of higher

education. By continuing to reinforce the traditional hierarchy of quality institutions, these ratings provide little or no impetus for improvement in higher education, especially for the community college segment.

The attempts to define educational quality have been both subjective and vague. Although various research methodologies have operationally defined quality as number of library books per student, number of faculty with doctoral degrees, etc., conceptually quality has been viewed as an individual's value judgment. Hence, the use of the peer rating approach. In essence, educational quality has been viewed as an individual's value judgment of an institution or program and not a measurable attribute or characteristic.

In the process of arriving at that value judgment, evaluation takes place. Numerous definitions or models of educational evaluation have emerged. With the increased emphasis on management information systems and the resulting availability of timely and relevant information, the decision-oriented models of educational evaluation have recently received increased support. In this approach, evaluation was viewed as the process of identifying and providing useful information for decision making. The type of information necessary for decision making is a function of the decision setting, the particular decision, and, most importantly, the values of the decision maker. In this approach, the evaluator facilitates the identification of useful information and provides this information in a format most useful to the decision maker. It is the decision maker's responsibility to make a value judgment based upon this information.

The approach to the educational quality issue utilized in this study was based upon the Stufflebeam decision-oriented model of educational evaluation. In this study, quality was viewed as an individual's judgment of a program or service. The study proposed to identify measures of quality for Florida community colleges as determined by administrators' perceptions of the degree of usefulness of various types of information for program quality-evaluation decision making.

CHAPTER III METHODS AND PROCEDURES

Design of the Study

This study was designed to identify measures of quality for use in Florida Community Colleges as indicated by administrators' perceptions of the degree of usefulness of various program characteristics for program quality-evaluation decision making. This study was based on the Stufflebeam model of educational evaluation as the process of providing useful information for judging among decision alternatives. The particular decision situation addressed by this study was the determination of educational quality. The review of related literature on the Stufflebeam model and other decision-oriented models of educational evaluation indicated that the determination of what types of information to be used in educational decision making should be the responsibility of the responsible decision maker, in this case the respective program administrator (Alkin, 1969; Craven, 1975; Stufflebeam et al., 1971). Therefore, a survey research design was adopted for this study and a questionnaire was developed to measure administrators' perceptions of the degree of usefulness of various program characteristics for program quality-evaluation decision making. This study was part of a larger project conducted by the Florida Community/Junior College Inter-Institutional research Council (IRC) at the University of Florida that focused upon describing quality in Florida Community Colleges.

The following sections describe the development of the questionnaire, collection of the data, the survey population, and the analysis of the data.

Development of the Questionnaire

In making program quality-evaluation decisions, administrators may desire information related to many aspects or characteristics of a program. The questionnaire used in this study contained a list of 434 program characteristics for respondents to rate for degree of usefulness in making program quality-evaluation decisions.

The program characteristics rated in this study were identified from two basic areas including:

1. A review ^{or} evaluative criteria utilized to rate the quality of programs or institutions in various quality-evaluation studies. These studies also included those designed to identify "indicators of quality" (e.g., Banghart et al., 1978; Fotheringham, 1978) for educational programs or institutions.

2. A review of various state and federal government reports identifying different types of information currently being collected and reported. The primary source in this area was the Community College Management Information System Procedures Manual for Florida (Division of Community Colleges, 1980) which contains copies of many reporting forms, including the required data with formatting requirements, used for various state and federal reports.

From those sources, a list of program characteristics was compiled. The list was submitted for review by a panel of community college management information specialists and institutional researchers consisting of IRC institutionl representatives for the year 1980-81 (See Appendix

B). A letter was sent to each representative with a list of the program characteristics, requesting that the list be reviewed and characteristics added, deleted, or modified in relation to their potential use in program quality-evaluation decision making. The review resulted in the addition of six new characteristics and the modification of various others. The list of 434 program characteristics included in the study questionnaire resulted from this process.

Using these program characteristics, the researcher developed a questionnaire to collect the required data. The questionnaire was submitted for review to the same panel of IRC representatives utilized for the refinement of the program characteristics. The review panel evaluated the questionnaire and provided input in the following areas:

1. Refinement of the questionnaire directions.
2. Refinement of the statements describing the program characteristics.
3. Refinement of the organization of the characteristics.
4. Refinement of the rating scale.
5. Refinement of the questionnaire format.
6. Determination of the approximate amount of time needed for completion of the questionnaire.

This process resulted in various modifications of the questionnaire which was sent out again for review by the panel. The final form of the questionnaire resulted from this second review. A copy of the questionnaire can be found in Appendix C.

The questionnaire was organized to collect data in four areas:

1. Demographic data of respondents. These data included the respondent's name, position, college, years in present position, years

at present college, years in community college education, years in education other than community college education, age, sex, and highest degree held.

2. The program perspective respondents used in rating the usefulness of the program characteristics. The perspectives were general (no specific program area in mind), advanced and professional, occupational, developmental, community instructional services, student support services, and other.

3. Usefulness-rating of the program characteristics for program quality-evaluation decision making.

4. Opinions of respondents of the amount of time spent in program quality-evaluation activities, the extent of their involvement in program quality-evaluation decision making, their perceived level of experience in program quality-evaluation, and the degree to which their position was associated with each program area.

The questionnaire consisted of five sections. Section one requested respondents to print their name, current position, and name of college. Section two contained a description of the purpose of the study, the organization of the questionnaire, and the directions for rating the program characteristics. The program characteristics were organized into four categories concerning information about students, faculty/staff, costs/resources, and general information. Examples describing the rating process were provided at the beginning of each category. Respondents were requested to add any program characteristics which they thought were of use but which were not included in the questionnaire.

Section two also contained a description of the four point rating scale used to rate the program characteristics for degree of usefulness in program quality-evaluation decision making. The scale was: (1) essential, (2) very useful, (3) some usefulness, and (4) little or no usefulness. Respondents were requested to rate any program characteristics they perceived as not applicable to their respective program or service area with a "4." The rating scale was printed on a loose insert providing respondents a quick reference when completing the questionnaire (Appendix C).

Section three requested that the respondents indicate the program perspective they would use in rating the program characteristics. Six choices of perspectives were listed: general, advanced and professional, occupational, developmental, community instructional services, and student support services. An "other" choice was provided for respondents to specify a perspective different from those listed. Following section three, the respondents proceeded in rating the program characteristics.

Section four consisted of a series of questions designed to collect basic demographic data on the respondents. These data included years in present position, years at present college, years in community college education, birthdate, sex, and highest degree held.

The fifth section of the questionnaire requested respondents to indicate their opinion of the degree to which their position was associated with each of the program areas, the amount of time they spent in program quality-evaluation decision making, and their level of experience in program quality-evaluation. Also respondents were requested to add any comments regarding the design of the study, the questionnaire, or the program quality-evaluation process at their college.

Data used in this study were collected by means of a questionnaire designed for use in the IRC Quality Indicators Project. Data collected by various sections of this questionnaire did not pertain directly to the purpose of this study and were therefore not considered. In particular this included data collected by sections three and five.

Survey Population

The population surveyed in this study included all administrators in the community college system of Florida who make quality-evaluation decisions regarding programs or services at their institutions. The identification of the decision makers included in the study was the responsibility of the designated study coordinator at each participating college. Study coordinators identified, by name and position, the persons at their institutions who were involved in quality-evaluation decisions. These persons included all administrators with some instructional or student personnel services responsibility as identified on the institution's yearly personnel classification report (SA-1, part 3) as administrative, managerial, or professional (Division of Community Colleges, 1980, p. 10.1).

Collection of Data

In refining the questionnaire, the review panel was asked to approximate the amount of time needed for its completion. The consensus of the review panel was that approximately 45 minutes to one hour was needed. Realizing the difficulty of securing the participation of administrators in a study that required such a substantial investment of time, procedures for the collection of data were used to increase the probability of obtaining their participation.

To gain publicity and support for the study, the endorsement of the Council of Presidents of the Florida Community College System was requested and received. Under this endorsement, a letter was sent to each community college president describing the study and requesting that they appoint an individual at their college to serve as a study coordinator. Twenty-four of the 28 public community colleges in Florida chose to participate in the project through their appointment of study coordinators.

Study coordinators were sent a letter thanking them for agreeing to serve and describing their role as study coordinator for their college. The first task of the study coordinator was to identify, by name and position, all administrators at their college who met the criteria for participation in the project (see p. 47). Forms and self-addressed stamped envelopes were included for their convenience in completing this task.

Letters were sent to all administrators identified by the study coordinators briefly describing the study and encouraging their participation. Packets were prepared for each participating administrator which included a cover letter, a one-page synopsis describing the purpose of the study, the questionnaire, and a return label addressed to their institution's study coordinator.

The second task of the study coordinators was to distribute and collect the questionnaire. Each study coordinator was sent a letter describing the distribution and collection process along with the prepared packets for each identified administrator at his or her college. This letter explained that the packets were to be distributed as soon as possible to the participating administrators. The participating

administrators were requested to complete the questionnaire within 10 days and return it to their college's study coordinators by affixing the included return label. The study coordinators were requested to allow approximately two weeks from the date of the distribution of the questionnaires for their return and to forward, to the researcher, the questionnaires that had been returned by that date.

With the return of the completed questionnaires, study coordinators were sent a letter thanking them for their assistance with the study, requesting the return of any subsequently received questionnaires, and informing them that they were not responsible for conducting follow-up activities. The follow-up procedure involved two steps. First a letter was sent to those administrators from whom questionnaires had not been received requesting that they complete the questionnaire at their earliest convenience and return it as soon as possible. If this process was ineffective, a second letter was sent which included a copy of the questionnaire and a request that the administrator complete and return it as soon as possible. Each administrator completing and returning the questionnaire was sent a letter thanking them for their investment of time and effort in the study.

When received, each questionnaire was given a position code based on the reported position and an institutional code based on the reported college. These codes were used to facilitate classification of the respondents by program area. A copy of the position codes used for classifying the respondents can be found in Appendix D.

Analysis of the Data

The data were analyzed with the assistance of the SAS (Statistical Analysis System) computer system for data analysis. Means were

calculated for each program characteristic for all respondents and for respondents classified in each program area. Using the calculated means, program characteristics were ranked for all respondents and for respondents in each program area. Spearman rank-order correlation coefficients were calculated for the upper quartile of program characteristics ranked by the mean usefulness-ratings for all respondents and for respondents in each program area.

For all respondents and for respondents classified into the five program areas, the program characteristics in the upper quartile of ranked mean usefulness-ratings were organized into four categories as they were presented in the questionnaire (program characteristics relating to students, faculty/staff, costs/resources, and general information). The differences or similarities in the program characteristics and in the ranks of the program characteristics contained in these groupings were discussed. For all respondents and for respondents classified into the five program areas, the study characteristics in the upper quartile of ranked mean usefulness-ratings were organized into information profiles using 11 types of information for all program areas except Student Services which required a 12th type of information. The areas of similarities or differences in these information profiles for each of the five program areas were discussed.

CHAPTER IV RESULTS

Introduction

The study was designed to identify measures of quality for use in Florida community colleges as indicted by administrators' perceptions of the usefulness of various program characteristics for program quality-evaluation decision making. The study was based on the Stufflebeam model of educational evaluation as the process of providing useful information for judging among decision alternatives. The particular decision of concern in the study was the determination of educational quality.

Specifically, the study proposed to:

1. Identify what program characteristics were considered most useful for program quality-evaluation decision making by administrators in Florida public community colleges.
2. Identify what program characteristics were considered most useful for program quality-evaluation decision making for administrators representing the five program areas of a comprehensive community college (see Appendix A for a description of the program areas).
3. Develop information profiles consisting of the program characteristics considered most useful for program quality-evaluation decision making for each program area.
4. Determine if community college administrators representing

the five program areas differed in the information they identified as most useful for program quality-evaluation decision making.

This chapter presents the results of this study. The results are presented in three sections: a description of the study respondents, presentation of the results for all respondents, and presentation of the results for respondents classified by program areas. A summary of these results with conclusions and recommendations is presented in Chapter V.

Description of Respondents

The results are based upon an analysis of responses received from 450 administrators representing 24 of Florida's 28 public community/junior colleges. Four colleges did not participate in the study. Of the 631 administrators identified by the study coordinators, responses were received from 450 for a response rate of 71.3%. All of the descriptive data collected on participants were by self-report as indicated on the questionnaire. The number of males to females responding was approximately 3 to 1 (Table 1). Ninety percent of the respondents reported having a masters degree or higher (Table 1). This was an indication only of level and not type of degree. Seventy-three percent had been at their present college for more than five years (Table 1). Almost 42% had been in their present position for more than five years (Table 1). More than three-fourths of the respondents reported seven years or more of experience in community college education and more than half reported more than five years in education other than community college education (Table 1).

Table 1

Frequencies for All Respondents by Sex, Degree Held, Years at Present College, Years in Present Position, Years in Community College Education and Years in Other Than Community College Education by Self-Report (N = 450)

Variable	Frequency	Percent of N
Sex		
Female	122	27.1
Male	321	71.3
Not reported	7	1.6
Degree Held		
Less than Bachelors	6	1.3
Bachelors	25	5.6
Masters	162	36
Specialist	36	8
Doctorate	207	46
Not reported	14	3.1
Years at Present College		
5 years or less	104	23.1
6 through 10 years	125	27.8
11 through 15 years	126	28
More than 15 years	79	17.6
Not reported	16	3.6
Years in Present Position		
2 years or less	138	30.7
3 through 5 years	113	25.1
6 through 10 years	101	22.4
More than 10 years	86	19.1
Not reported	12	2.7
Years in Community College Education		
6 years or less	94	20.9
7 through 11 years	128	28.4
12 through 15 years	14	25.3
More than 15 years	104	23.1
Not reported	10	2.2
Years in Education Other Than Community College		
None	80	17.8
1 through 5 years	101	22.4
6 through 10 years	84	18.7
More than 10 years	160	35.6
Not reported	25	5.6

A position code was assigned to each respondent based upon the position title reported on the questionnaire. Position codes with corresponding titles and frequencies are listed in Appendix D. Position codes were used to classify respondents into five program areas (Advanced and Professional, Occupational, Developmental, Community Instructional Services, and Student Services) used in the analysis. Appendix A contains a description of each program area with a list of position codes included in each area. Only respondents having major responsibility (based on reported position title) in one of the five program areas were included in the analysis by program area. A total of 262 respondents was identified as having major responsibility in one of the five program areas representing 58% of the 450 respondents who participated in the study. The number of respondents classified in each program area is reported in Table 2.

Table 2

Number of Respondents Per Program Area and Corresponding Percentages of All Respondents (N = 450)

Program Area	No. of Respondents	Percentage of N
Advanced and Professional	65	14.4
Occupational	83	18.4
Developmental	5	1.1
Community Instructional Services	21	4.7
Student Services	88	19.6
	—	—
TOTAL	262	58.2

Results for All Respondents

Mean usefulness-ratings were calculated for each program characteristic in the questionnaire for all respondents and for respondents classified in each of the program areas. Using these means, ranks were calculated for the program characteristics for each classification of respondents. When values were tied for a rank, the tied values received the mean of the ranks that would have been assigned had the ranks not tied. The mean usefulness-rating and rank for each characteristic are reported in Appendix E for all respondents and for respondents classified in the program areas.

The ranks for the program characteristics in the upper quartile of ranked mean usefulness-ratings, based on the ratings by all respondents, are reported in Table 3 for all respondents and for respondents classified by program area. The 108 characteristics listed in Table 3 are in order by rank as determined for all respondents with the corresponding rank for each characteristic indicated for respondents classified in the five program areas of Advanced and Professional (Advan. & Prof.), Occupational (Occup.), Developmental (Develop.), Community Instructional Services (Comm. Instr. Serv.), and Student Services (Stu. Serv.).

For all respondents, the program characteristics ranked 1 through 91 ranged respectively from a mean usefulness-rating of 1.38 to a mean usefulness-rating of 1.99 with the program characteristic ranked 108 having a mean usefulness-rating of 2.05. Since the rating scale ranged from 1 (indicating that the program characteristic was considered "essential" in making a judgment about the quality of a program) to 4 (indicating that the program characteristic was considered of "little or no usefulness" or "not applicable" in arriving at a judgment of the quality of a

Table 3

Ranks for Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings for All Respondents With Corresponding Ranks for Respondents Classified into Program Areas

Advan. & Prof.	Occup.	Develop.	Comm. Instr. Serv.	Stu. Serv.	All	Program Characteristics
9	7	1.5	1	3	1	Total cost of program
4	2	12.5	7	18	2	Ratings of program curriculum by program completers
15	1	162.5	11	11	3	Employer opinion of program completers
3	3	19	13	4	4	Number or percent of students completing a program
21	4	4.5	2	16	5	Clearly stated program objectives
7	9	1.5	8.5	22.5	6	Cost of instructional personnel per total program
6	27	76.5	37	14	7	Total cost per program FTE
23.5	15	27	4.5	11	8	Level of demand for program/service in service area
1	26	12.5	64	15	9	Number or percent of full-time faculty/staff by degrees held
5	5	76.5	3	17	10	Number of students enrolling in a program
10	13	76.5	16	7	11	Number or percent of students withdrawing from a program
55.5	8	294	23	9	12	Number or percent of students passing state board or licensure exams
19	6	4.5	11	22.5	13	Cost of materials per total program
18	11	12.5	4.5	8	14	Level of demand for program/service by students
14	33	76.5	45.5	33	15	Cost of instructional personnel per program FTE
30	43	47	42	1	16	Ratings of accessibility of student services by currently enrolled students
12	42	76.5	29.5	19	17	Total cost of program per unduplicated headcount
31.5	10	27	8.5	87	18	Ratings of program facilities/equipment by faculty/staff
63	11.5	47	18.5	50	19	Ratings of program facilities/equipment by program completers

Table 3-Continued

Advan. & Prof.	Occup.	Develop.	Comm. Instr. Serv.	Stu. Serv.	All	Program Characteristics
37.5	63	47	42	2	20	Ratings of ease of use of student services by currently enrolled students
22	18	226.5	14.5	29	21	Job satisfaction ratings by program completers
23.5	15	47	64	34.5	22	Number or percent of full-time faculty/staff by number of students per term
29	22	12.5	6	103.5	23	Ratings of program instructional strategies by faculty/staff
13	20.5	47	64	25	24	Number or percent of full-time faculty/staff by years taught/service
33.5	58.5	47	80	5.5	25	Ratings of usefulness of student services by currently enrolled students
26	18	27	39	39	26	Number or percent of full-time faculty/staff by average class size
20	23	4.5	56.5	31	27	Number or percent of full-time faculty/staff by number of student contact hours per term
64.5	39	12.5	18.5	24	28	Cost of program administration per total program
69	53.5	12.5	25.5	26	29	Cost of support services per total program
25	29	76.5	145	27	30	Number or percent of full-time faculty/staff by number of course hours taught per term
16	60.5	105.5	33.5	37.5	31	Cost of instructional personnel per program unduplicated headcount
11	30	27	117	32	32	Number or percent of full-time faculty/staff by length of service in program
17	64.5	76.5	25.5	45.5	33	Number or percent of part-time faculty/staff by degrees held
40	35	27	48.5	36	34	Ratings of program staff by program completers
62	38	294	71	44	35	Number or percent of program completers by type of license, certificate, or registration received
129	60.5	47	67.5	5.5	36	Ratings of accessibility of student services by program completers

Table 3-Continued

Advan. & Prof.	Occup.	Devel.	Comm. Instr. Serv.	Stu. Serv.	All	Program Characteristics	
58	49.5	27	33.5	48.5	37	Number of support staff per total program	
31.5	24	27	18.5	91.5	38	Ratings of program administration by faculty/staff	
91.5	69	47	93.5	13	39	Ratings of usefulness of student services by program completers	
82.5	28	294	37	55.5	40	Number or percent of program completers taking state board or licensure exams	
27.5	56.5	76.5	37	77.5	41	Cost of materials per program FTE	
99	18	12.5	21.5	99.5	42	Ratings of program instructional strategies by program completers	
2	40	47	222	58	43	Ratio of part-time to full-time faculty/staff	
45	44	4.5	48.5	48.5	44	Cost of equipment maintenance per total program	
77	32	162.5	71	83	45	Ratings by accreditation agencies	
75.5	37	76.5	56.5	43	46	Number or percent of full-time faculty/staff by productivity ratio	
33.5	41	76.5	95	28	47	Number or percent of full-time faculty/staff by rate of faculty/staff turnover	
39	53.5	76.5	42	41.5	48	Cost of materials per program unduplicated headcount	
58	35	47	18.5	77.5	49	Number or percent of part-time faculty/staff by average class size	
129	82	47	75.5	11	50	Ratings of ease of use of student services by program completers	
42	45	76.5	126.5	63.5	51	Equipment utilization per total program	
109	15	27	14.5	144	52	Ratings of a program curriculum by faculty/staff	
43	53.5	105.5	25.5	105.5	53	Ratings of support services by faculty/staff	
86	47	168	29.5	105.5	54	Ratings by certification boards	
44	71	194.5	87.5	47	55	Program admission requirements	
58	35	76.5	42	87	56	Number or percent of part-time faculty/staff by number of students per term	

Table 3-Continued

Advan. & Prof.	Occup.	Develop.	Comm. Instr. Serv.	Stu. Serv.	All	Program Characteristics
106	20.5	268	75.5	71	57	Number or percent of program completers holding jobs for which trained
8	97	27	117	34.5	58	Number or percent of full-time faculty/staff by certification/rank
75.5	58.5	47	33.5	87	59	Ratings of program facilities/equipment by currently enrolled students
129	74	27	113	20.5	60	Ratings of support services by program completers
142	82	12.5	87.5	20.5	61	Ratings of support services by currently enrolled students
81	56.5	47	87.5	67.5	62	Level of demand for program/service in state
51	99.5	76.5	71	52	63	Cost of program administration per program FTE
80	67	12.5	33.5	73	64	Number/types of changes as a result of program evaluation
61	49.5	12.5	21.5	164.5	65	Ratings of program staff by faculty/staff
109	67	27	59.5	81.5	66	Ratings of program staff by currently enrolled students
51	47	130.5	161	109	67	Number or percent of full-time faculty/staff by level of use of alternative instructional methods
53.5	29	76.5	117	69	68.5	Number or percent of full-time faculty/staff by level of participation in program decision making
73	117	105.5	51	70	68.5	Cost of support services per program FTE
91.5	47	12.5	48.5	111.5	70	Number or percent of part-time faculty/staff by number of student contact hours per term
115	51	105.5	29.5	96.5	71	Number or percent of part-time faculty/staff by productivity ratio
100	92	27	59.5	45.5	72	Cost of space utilized per total program
64.5	77	130.5	87.5	98	73	Space utilization per total program
46	113	76.5	126.5	76	74	Number or percent of entering students by types of developmental or remedial assistance desired

Table 3--Continued

Advan. & Prof.	Occup.	Develop.	Comm. Instr. Serv.	Stu. Serv.	All	Program Characteristics
90	119.5	105.5	67.5	37.5	75	Cost of support services per program unduplicated headcount
113	64.5	47	67.5	53.5	76	Number or percent of entering students by type of handicap
41	111	47	165	93	77	Number or percent of entering students by academic skills level as measured by local instruments
71	31	358	139	61	78	Number or percent of entering students by major area of study
97.5	92	76.5	113	41.5	79	Cost of program administration per program unduplicated headcount
49	86	47	199.5	80	80	Number or percent of full-time faculty/staff by number of FTE per term
115	70	47	53.5	147.5	81	Ratings of program instructional strategies by currently enrolled students
53.5	53.5	358	148.5	57	82	Number or percent of currently enrolled students by major area of study
36	79	145	93.5	127	83	Number or percent of program completers by average time taken for completion of a program
109	75.5	47	146	99.5	84	Number/types of changes as a result of accreditation studies
66.5	88	76.5	11	111.5	85	Number or percent of part-time faculty/staff by years taught/service
88	111	105.5	157	119.5	86	Number or percent of currently enrolled students by types of developmental or remedial assistance desired
120.5	62	162.5	99.5	119.5	87	Number or percent of part-time faculty/staff by number of course hours taught per term
55.5	106.5	226.5	217.5	75	88	Number or percent of currently enrolled students by average GPA of students in program
51	102.5	76.5	132.5	130	89	Cost of equipment maintenance per program FTE

Table 3-Continued

Advan. & Prof.	Occup.	Develop.	Comm. Instr. Serv.	Stu. Serv.	All	Program Characteristics
60	80	76.5	29.5	132	90	Number or percent of part-time faculty/staff by length of service in a program
103	106.5	226.5	110	107	91	Number or percent of currently enrolled students by percent of total college FTE in program
126.5	86	318	175.5	65.5	92	Number or percent of currently enrolled students by number of hours with failing grade
120.5	84	268	315.5	65.5	93	Number or percent of currently enrolled students by cumulative GPA categories for program-related coursework
135	90	47	25.5	138	94	Ratings of a program curriculum by currently enrolled students
95.5	137.5	76.5	120	124	95	Number of support staff per program FTE
72	98	105.5	157	114.5	96	Equipment utilization per program unduplicated headcount
94	101	194.5	260.5	140	97	Number of library holdings per total program
140.5	75.5	47	87.5	91.5	98	Number or percent of currently enrolled students by type of handicap
136	133	105.5	126.5	63.5	99	Number of support staff per program unduplicated headcount
143.5	86	27	126.5	131	100	Ratings of program administration by program completers
37.5	104.5	76.5	184	164.5	101	Equipment utilization per program FTE
106	111	162.5	165	116	102	Number or percent of entering students by level of previous academic achievement
27.5	129	76.5	62	119.5	103	Number or percent of part-time faculty/staff by certification/rank
132	145	145	80	55.5	104	Number or percent of currently enrolled students by percent of total college unduplicated headcount in program

Table 3-Continued

Advan. & Prof.	Occup.	Develop.	Comm. Instr. Serv.	Stu. Serv.	All	Program Characteristics
161	123	105.5	45.5	101	105	Ratings of usefulness of student services by faculty/ staff
131	67	130.5	99.5	186	106	Number or percent of part-time faculty/staff by level of use of alternative instructional methods
95.5	92	76.5	82	102	107	Number or percent of full-time faculty/staff by level of compensation
35	137.5	130.5	209	144	108	Number or percent of currently enrolled students by academic skills level as measured by local instruments

program), all 108 characteristics in Table 3 had a mean usefulness-rating on the "essential" side of the rating scale. The mean usefulness-ratings for all respondents ranged from 1.38 to 3.48 for all 434 program characteristics (Appendix E).

In the questionnaire, the program characteristics were organized into four categories relating to students, faculty/staff, costs/resources, and general information (Appendix C). The distribution of the program characteristics in the upper quartile of mean usefulness-ratings by all respondents among all four categories of program characteristics is reported in Table 4.

The program characteristics relating to students in the upper quartile of mean usefulness-ratings for all respondents are listed in Table 5. Program characteristics relating to program completers received the highest ratings for usefulness in making program quality-evaluation decisions combined with number of students enrolling in a program (rank 10)

Table 4

Distribution by Category of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by All Respondents

Category	Number of Characteristics	Percentage of Upper Quartile Characteristics
I. Program Characteristics Relating to Students	22	20.4
II. Program Characteristics Relating to Faculty/Staff	25	23.1
III. Program Characteristics Relating to Costs/Resources	26	24.1
IV. Program Characteristics Relating to General Information	35	32.4

and number or percent of students withdrawing from a program (rank 11). Next in perceived usefulness in program quality-evaluation decision making were program characteristics relating to entering students followed by program characteristics relating to currently enrolled students. Four of the five program characteristics rated as highly useful for program quality-evaluation decision making relating to entering students were included in the program characteristics relating to currently enrolled students.

The program characteristics relating to faculty/staff in the upper quartile of mean usefulness-ratings by all respondents are listed in

Table 5

Program Characteristics Relating to Students (Questionnaire Category I) in the Upper Quartile of Mean Usefulness-Ratings by All Respondents With Ranks

Ranks	Program Characteristics
10	Number of students enrolling in a program
	Number or percent of entering students:
74	by types of developmental or remedial assistance desired
76	by type of handicap
77	by academic skills level as measured by local instruments
78	by major area of study
102	by level of previous academic achievement
	Number or percent of currently enrolled students:
82	by major area of study
86	by types of developmental or remedial assistance desired
88	by average GPA of students in program
91	by percent of total college FTE in program
92	by number of hours with failing grade
93	by cumulative GPA categories for program-related coursework
98	by type of handicap
104	by percent of total college unduplicated headcount in program
108	by academic skills level as measured by local instruments
	Number or percent of students completing a program
	Number or percent of program completers:
12	passing state board or licensure exams
35	by type of license, certificate or registration received
40	taking state board or licensure exams
57	holding jobs for which trained
83	by average time taken for completion of a program
11	Number or percent of students withdrawing from a program

Table 6. Although the rank-order differed, all of the program characteristics rated as highly useful in making program quality-evaluation decisions and which related to part-time faculty/staff appeared in the list for full-time faculty/staff. The program characteristic "Number or percent of faculty/staff by degrees held" had the highest rank for the program characteristics related to both full-time and part-time faculty/staff. The 10 program characteristics common to both full-time and part-time faculty/staff appeared to be indicators of: level of preparation (degrees held and certification/rank), level of experience (years taught/

Table 6

Program Characteristics Relating to Faculty/Staff (Questionnaire Category II) in the Upper Quartile of Mean Usefulness-Ratings by All Respondents With Ranks

Ranks	Program Characteristics
43	Ratio of part-time to full-time faculty/staff
	Number or percent of full-time faculty/staff:
9	by degrees held
22	by number of students per term
24	by years taught/service
26	by average class size
27	by number of student contact hours per term
30	by number of course hours taught per term
32	by length of service in program
46	by productivity ratio
47	by rate of faculty/staff turnover
58	by certification/rank
67	by level of use of alternative instructional methods
68.5	by level of participation in program decision making
80	by number of FTE per term
107	by level of compensation
	Number or percent of part-time faculty/staff:
33	by degrees held
49	by average class size
56	by number of students per term
70	by number of student contact hours per term
71	by productivity ratio
85	by years taught/service
87	by number of course hours taught per term
90	by length of service in a program
103	by certification/rank
106	by level of use of alternative instructional methods

service, length of service), length of productivity (number of students, student contact hours, course hours taught per term, average class size, productivity ratio), and level of instructional skill (use of alternative instructional methods). For full-time faculty/staff there was an additional productivity indicator (number of FTE per term). Four program characteristics related to full-time faculty/staff appeared to be indicators of the functioning of program/service administration: ratio of part-time to full-time faculty/staff, rate of faculty/staff turnover, level of participation in decision making, and level of compensation.

The program characteristics related to costs/resources in the upper quartile of mean usefulness-ratings by all respondents are listed in Table 7. Three of the top 10 program characteristics ranked by mean usefulness-ratings by all respondents were included in this category of program characteristics: total cost per total program (rank 1), total cost per program FTE (rank 7), and cost of instructional personnel per total program (rank 6). There were seven types of program characteristics rated as highly useful in program quality-evaluation decision making related to costs/resources: total cost, cost of administration, cost of instructional personnel, cost of support services, cost of materials, cost of equipment maintenance, and cost of space utilized. For the first five of these, the program characteristic had the highest usefulness-rating per total program, followed by per program FTE, which was followed by per program unduplicated headcount. Four other types of program characteristics related to costs/resources were rated as highly useful in making program quality-evaluation decisions: number of support staff, equipment utilization, space utilization, and number of library holdings. The order of emphasis for usefulness in program quality-

Table 7

Program Characteristics Relating to Costs/Resources (Questionnaire Category III) in the Upper Quartile of Mean Usefulness-Ratings by All Respondents With Ranks

Ranks	Program Characteristics
	Total cost:
1	per total program
7	per program FTE
17	per program unduplicated headcount
	Cost of administration:
28	per total program
63	per program FTE
79	per program unduplicated headcount
	Cost of instructional personnel:
6	per total program
15	per program FTE
31	per program unduplicated headcount
	Cost of support services:
29	per total program
68.5	per program FTE
75	per program unduplicated headcount
	Cost of materials:
13	per total program
41	per program FTE
48	per program unduplicated headcount
	Cost of equipment maintenance:
44	per total program
89	per program FTE
72	Cost of space utilized per total program
	Number of support staff:
37	per total program
95	per program FTE
99	per program unduplicated headcount
	Equipment utilization:
51	per total program
96	per program unduplicated headcount
101	per program FTE
73	Space utilization per total program
97	Number of library holdings per total program

evaluation decision making per total program was: total cost, cost of instructional personnel, cost of materials, cost of administration, cost of support services, number of support staff, cost of equipment maintenance, equipment utilization, cost of space utilized, space utilization,

and number of library holdings. The order of emphasis per program FTE and per program unduplicated headcount varied slightly from the order of emphasis per total program.

The program characteristics related to general information in the upper quartile of mean usefulness-ratings by all respondents are listed in Table 8. Four of the top 10 program characteristics ranked by mean usefulness-ratings by all respondents were in this category: ratings of a program curriculum by program completers (rank 2), employer opinion of program completers (rank 3), clearly stated program objectives (rank 5), and level of demand for program/service in service area (rank 8). Ratings of various aspects of a program/service by various groups were rated as highly useful in making program quality-evaluation decisions. Ratings of a program curriculum and program staff by program completers had the highest usefulness-rating followed by ratings by faculty/staff and then ratings by currently enrolled students. A different ranking for type of rater occurred for ratings of program facilities/equipment, program instructional strategies, program administration, and support services. For these aspects of a program/service, ratings by faculty/staff were rated as most useful followed by ratings by program completers which was followed by ratings by currently enrolled students, except that the latter ratings were not rated as highly useful for rating program administration. For the ratings of student services, a different ranking for raters occurred. Ratings by currently enrolled students of accessibility of student services, ease of use of student services, and usefulness of student services were rated as most useful followed by ratings by program completers. Program admission requirements, ratings by accreditation agencies and certification boards, and changes resulting from

Table 8

Program Characteristics Relating to General Information (Questionnaire Category IV) in the Upper Quartile of Mean Usefulness-Ratings by All Respondents With Ranks

Ranks	Program Characteristics
3	Employer opinion of program completers
5	Clearly stated program objectives
	Level of demand for program/service:
8	in service area
14	by students
62	in state
55	Program admission requirements
45	Ratings by accreditation agencies
54	Ratings by certification boards
	Number/types of changes as a result of:
64	program evaluation
84	accreditation studies
21	Job satisfaction ratings by program completers
	Ratings of a program curriculum:
2	by program completers
52	by faculty/staff
94	by currently enrolled students
	Ratings of program facilities/equipment:
18	by faculty/staff
19	by program completers
59	by currently enrolled students
	Ratings of program instructional strategies
23	by faculty/staff
42	by program completers
81	by currently enrolled students
	Ratings of program staff:
34	by program completers
65	by faculty/staff
66	by currently enrolled students
	Ratings of program administration:
38	by faculty/staff
100	by program completers
	Ratings of support services:
53	by faculty/staff
60	by program completers
61	by currently enrolled students
	Ratings of accessibility of student services:
16	by currently enrolled students
36	by program completers
	Ratings of ease of use of student services:
20	by currently enrolled students
50	by program completers
	Ratings of usefulness of student services:
25	by currently enrolled students
39	by program completers
105	by faculty/staff

program evaluations and accreditation studies were rated, also, as highly useful in making quality-evaluation decisions about programs or services.

From these tables (Table 5 to Table 8), it may be seen that a wide variety of program characteristics as rated for degree of usefulness in program quality-evaluation decision making by all respondents had high mean usefulness-ratings (ranging from 1.38 to 2.05). In Table 9, the 108 program characteristics in the upper quartile of mean usefulness-ratings by all respondents are organized into 11 types of information including: need for and structure of a program, size, costs, utilization rates, support services, information on entering students, information on currently enrolled students, information on faculty/staff, information from external/internal evaluations, quantitative outputs, and ratings. In this one table, all the program characteristics rated as highly useful by all respondents are displayed in a comprehensive multi-variate information profile for making quality-evaluation decisions about programs or services as perceived by administrators in Florida's community colleges.

Results for Program Areas

The preceding describes the program characteristics rated as most highly useful based upon the mean usefulness-ratings by all respondents. There were differences in the program characteristics in the upper quartile of mean usefulness-ratings when the responses were analyzed by respondents classified in the five program areas: Advanced and Professional, Occupational, Developmental, Community Instructional Services, and Student Services. Only respondents who, based upon their position titles, were perceived as having major responsibility in one of the five

Table 9

Information Profile of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by All Respondents (N = 450)

Information Type	Program Characteristics Relating to Information Type
Need and structure	Clearly stated program objectives, level of demand for program, program admission requirements
Size	Number enrolling, percent of total college FTE and unduplicated headcount
Costs	Total, instructional personnel, materials, administration, support services, equipment maintenance, space utilized
Utilization rates	Equipment, space
Support services	Number of support staff, number of library holdings
Entering students	Type of developmental or remedial assistance desired, type of handicap, academic skills level (previous and as assessed by local instruments), major area of study
Currently enrolled students	Same as for entering students without level of previous academic achievement and adding information on performance of students in program (GPA, cumulative GPA, hours with failing grade)
Faculty/staff	For both full-time and part-time: ratio of part-time to full-time; level of preparation (degrees held, certification/rank); level of experience (years taught/service, length of service); level of productivity (number of students, student contact hours, and course hours taught per term, average class size, productivity ratio); level of instructional skill (use of alternative instructional methods). For full-time: rate of turnover; level of participation in program decision making; level of compensation; number of FTE per term
External/internal evaluations	Ratings by accreditation agencies and certification boards, number/types of changes as result of these studies, and other program evaluation
Quantitative outputs	Number or percent: completing; taking and passing state board or licensure exams; by type of license, certificate, or registration received; holding jobs for which trained; by average time for completion; withdrawing

Table 9-Continued

Information Type	Program Characteristics Relating to Information Type
Ratings	Of program completers by employers; of job satisfaction by program completers; of a program's curriculum, facilities/equipment, instructional strategies, staff, and administration by various types of raters; of support services and student services by various types of raters

program areas were included in the analysis by program area. The position codes included in each program area are listed in Appendix A. The number of respondents in each program area and the percentage of all respondents which this represents are given in Table 2.

Using the ranked mean usefulness-ratings for the same 108 program characteristics as reported in Table 3, Spearman rank-order correlation coefficients were calculated between the five program areas and between all respondents and each program area. These are reported in Table 10. They ranged from a low of .25 to a high of .64, excluding the correlation coefficients of each program area with all respondents. The Spearman rank-order correlation coefficients were a measure of the degree of similarity in the ranks of the program characteristics as ordered by mean usefulness-ratings across the five program areas. The coefficients indicated considerable variability in the degree of similarity of the ranked upper quartile mean usefulness-ratings among the program areas. To determine where the differences and similarities occurred in the program characteristics among the program areas, the program characteristics in the upper quartile of mean usefulness-ratings for each program area were identified. They are reported for each program area in the same manner as the program characteristics in the upper quartile of mean usefulness-ratings for all respondents were

Table 10

Spearman Rank-Order Correlation Coefficients for the Upper Quartile of Mean Usefulness-Ratings by All Respondents for Respondents Classified in the Five Program Areas

	All	Advan. & Prof.	Occup.	Develop.	Comm. Instr. Serv.	Stu. Serv.
All	1.00	.69	.85	.43	.66	.77
Advan. & Prof.		1.00	.55	.25	.35	.47
Occup.			1.00	.34	.64	.50
Develop.				1.00	.43	.29
Comm. Instr. Serv.					1.00	.33
Stu. Serv.						1.00

presented, i.e., organized into the four categories (program characteristics related to students, faculty/staff, costs/resources, and general information) and then displayed in a summary information-profile table. The mean usefulness-ratings for all program characteristics for each program area are reported in Appendix E.

Advanced and Professional Program Area

The distribution of the program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area among the four categories of program characteristics is reported in Table 11. Compared to the distribution for all respondents (Table 4), respondents classified in the Advanced and Professional Program Area identified more characteristics related to students and fewer characteristics related to general information as highly useful in program quality-evaluation decision making.

Table 11

Distribution by Category of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents (N = 65) Classified in the Advanced and Professional Program Area

Category	Number of Characteristics	Percentage of Upper Quartile Characteristics
I. Program Characteristics Related to Students	30	28.0
II. Program Characteristics Related to Faculty/Staff	24	22.4
III. Program Characteristics Related to Costs/Resources	29	27.2
IV. Program Characteristics Related to General Information	24	22.4
TOTAL	107	100.0

The means of the usefulness-ratings for these program characteristics ranged from 1.28 to 1.95 (Appendix E). The program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area are presented with ranks in the next four tables. Those related to students are presented in Table 12, those related to faculty/staff in Table 13, those related to costs/resources in Table 14, and those related to general information in Table 15.

Table 12 shows that respondents classified in the Advanced and Professional Program Area rated as highly useful in making quality-evaluation decisions program characteristics concerning the measuring of academic skills through testing for all categories of students (entering, currently enrolled, completers). Types of testing identified included local, state, and national instruments with the mean usefulness-ratings

Table 12

Program Characteristics Relating to Students (Questionnaire Category I)
in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classi-
fied in the Advanced and Professional Program Area With Ranks

Ranks	Program Characteristics
5	Number of students enrolling in a program
	Number or percent of entering students:
41	by academic skills level as measured by local instruments
46	by types of developmental or remedial assistance desired
47.5	by academic skills level as measured by state instruments
71	by major area of study
88	by academic skills level as measured by national instruments
102	by degree level sought
106	by level of previous academic achievement
	Number or percent of currently enrolled students:
35	by academic skills level as measured by local instruments
53.5	by major area of study
55.5	by average GPA of students in program
68	by academic skills level as measured by state instruments
82.5	by average course load for students in program
88	by academic skills level as measured by national instruments
88	by types of developmental or remedial assistance desired
93	by number of hours of developmental/remedial work
101	by performance on standardized state tests
103	by percent of total college FTE in program
3	Number or percent of students completing a program
	Number or percent of program completers:
36	by average time taken for completion of a program
47.5	by performance on standardized state tests
55.5	passing state board or licensure exams
62	by type of license, certificate, or registration received
70	by performance on standardized national tests
74	by major area of study
82.5	taking state board or licensure exams
84.5	by academic skills level as measured by local instruments
106	holding jobs for which trained
106	by academic skills level as measured by state instruments
10	Number or percent of students withdrawing from a program

ranked in the order as cited for entering and currently enrolled students. For program completers, the mean usefulness-ratings rank order was standardized state tests, standardized national tests, and local instruments. Only one program characteristic related to testing appeared in the upper quartile of mean usefulness-ratings by all

respondents: number or percent of entering and currently enrolled students by academic skills level as measured by local instruments (Table 5).

Three of the top 10 program characteristics ranked by mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area related to faculty/staff (Table 13): number or percent of full-time faculty/staff by degrees held (rank 1), by certification/rank (rank 8), and the ratio of part-time to full-time faculty/staff (rank 2). All of the program characteristics related to full-time faculty/staff in

Table 13

Program Characteristics Relating to Faculty/Staff (Questionnaire Category II) in the Upper Quartile of Mean Usefulness-Ratings by Respondents
Classified in the Advanced and Professional Program Area With Ranks

Ranks	Program Characteristics
2	Ratio of part-time to full-time faculty/staff
78	Ratio of faculty to student support staff
84.5	Ratio of faculty/staff to clerical staff
	Number or percent of full-time faculty/staff:
1	by degrees held
8	by certification/rank
11	by length of service in program
13	by years taught/service
20	by number of student contact hours per term
23.5	by number of students per term
25	by number of course hours taught per term
26	by average class size
33.5	by rate of faculty/staff turnover
49	by number of FTE per term
51	by level of use of alternative instructional methods
53.5	by level of participation in program decision making
75.5	by productivity ratio
99.5	by level of compensation
	Number or percent of part-time faculty/staff:
17	by degrees held
27.5	by certification/rank
58	by average class size
58	by number of students per term
60	by length of service in a program
66.5	by years taught/service
91.5	by number of student contact hours per term

the upper quartile of mean usefulness-ratings by all respondents (Table 6) were in the upper quartile of mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area. Two program characteristics appeared which were not in the upper quartile of mean usefulness-ratings by all respondents: the ratio of faculty to student support staff and the ratio of faculty/staff to productivity ratio, number of course hours taught per term, and level of use of alternative instructional methods.

Program characteristics related to costs/resources (Table 14) also had high mean usefulness-ratings for respondents classified in the Advanced and Professional Program Area. Three of the top 10 program characteristics ranked by mean usefulness-ratings by respondents classified in this program area related to costs/resources: total cost per program FTE (rank 6) and per total program (rank 9) and cost of instructional personnel per total program (rank 7). The order of emphasis for usefulness in Advanced and Professional program quality-evaluation decision making per total program was cost of instructional personnel, total cost, cost of materials, equipment utilization, cost of equipment maintenance, number of support staff, cost of administration, space utilization, cost of support services, number of library holdings, and cost of space utilized. The order of emphasis per program FTE and per program unduplicated headcount varied slightly from the order of emphasis per total program. In addition to the program characteristics related to costs/resources which appeared in the upper quartile of mean usefulness-ratings by all respondents (Table 7), respondents classified in the Advanced and Professional Program Area indicated as highly useful space utilization per program FTE and per program unduplicated headcount, cost

Table 14

Program Characteristics Relating to Costs/Resources (Questionnaire Category III) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Advanced and Professional Program Area With Ranks

Ranks	Program Characteristics
	Total cost:
6	per program FTE
9	per total program
12	per program unduplicated headcount
	Cost of administration
51	per program FTE
64.5	per total program
97.5	per program unduplicated headcount
	Cost of instructional personnel:
7	per total program
14	per program FTE
16	per program unduplicated headcount
	Cost of support services:
69	per total program
73	per program FTE
90	per program unduplicated headcount
	Cost of materials:
19	per total program
27.5	per program FTE
39	per program unduplicated headcount
	Cost of equipment maintenance:
45	per total program
51	per program FTE
97.5	per program unduplicated headcount
100	Cost of space utilized per total program
	Number of support staff:
58	per total program
95.5	per program FTE
	Equipment utilization:
37.5	per program FTE
42	per total program
72	per program unduplicated headcount
	Space utilization:
64.5	per total program
66.5	per program FTE
79	per program unduplicated headcount
	Number of library holdings:
94	per total program
104	per program FTE

of equipment maintenance per program unduplicated headcount, and number of library holdings per program FTE. Number of support staff per

program unduplicated headcount, in the upper quartile of mean usefulness-ratings by all respondents (Table 7) did not appear in the upper quartile of mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area.

Only one of the top 10 program characteristics ranked by mean usefulness-ratings for respondents classified in the Advanced and Professional Program Area related to general information (Table 15): ratings

Table 15

Program Characteristics Relating to General Information (Questionnaire Category IV) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Advanced and Professional Program Area With Ranks

Ranks	Program Characteristics
21	Clearly stated program objectives
44	Program admission requirements
	Level of demand for program/service:
18	by students
23.5	in service area
81	in state
77	Ratings by accreditation agencies
86	Ratings by certification boards
80	Number/types of changes as a result of program evaluation
15	Employer opinion of program completers
22	Job satisfaction ratings by program completers
4	Ratings of a program curriculum by program completers
	Ratings of program facilities/equipment:
31.5	by faculty/staff
63	by program completers
75.5	by currently enrolled students
	Ratings of program instructional strategies:
29	by faculty/staff
99	by program completers
	Ratings of program staff:
40	by program completers
61	by faculty/staff
31.5	Ratings of program administration by faculty/staff
43	Ratings of support services by faculty/staff
30	Ratings of accessibility of student services by currently enrolled students
37.5	Ratings of ease of use of student services by currently enrolled students
	Ratings of usefulness of student services;
33.5	by currently enrolled students
91.5	by program completers

of a program curriculum by program completers (rank 4). In order, by mean usefulness-rating rank, this was followed by employer opinion of program completers (rank 15), level of demand for program/service by students (rank 18), clearly stated program objectives (rank 21), and job satisfaction ratings by program completers (rank 22). Ratings by faculty/staff of program instructional strategies, program facilities/equipment, program administration, and support services had higher mean usefulness-ratings than ratings by either program completers or currently enrolled students. For ratings of program staff, ratings by program completers rather than by faculty/staff had a higher mean usefulness-rating rank. Neither ratings of program instructional strategies, program staff, or support services by currently enrolled students nor ratings of program administration or support services by program completers appeared in the upper quartile mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area. They were in the upper quartile of mean usefulness-ratings by all respondents (Table 8).

Ratings of accessibility, usefulness, and ease of use of student services by currently enrolled students had a higher mean usefulness rating rank than such ratings by either program completers or faculty/staff. Three other types of characteristics related to general information were rated as highly useful in program quality-evaluation decision making by respondents classified in the Advanced and Professional Program Area: program admission requirements, ratings by accreditation agencies and certification boards, and number/types of changes as a result of program evaluation. These occurred in the upper quartile of mean usefulness-ratings by all respondents (Table 8).

In Table 16, the program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area were organized into a program quality-evaluation information profile using the same 11 types of information which were used in the program quality-evaluation information profile for all respondents (Table 9). A comparison of Tables 9 and 16 shows clearly the similarities and differences in the two information profiles. Although the order of emphasis varied relating to usefulness of the program characteristics in program quality-evaluation decision making, the areas of similarity were in the information types of need and structure, size, costs, utilization rates, support services, external/internal evaluations, and ratings. The areas of differences were in the information types of entering students, currently enrolled students, faculty/staff, and quantitative outputs.

Occupational Program Area

The distribution of the program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Occupational Program Area among the four categories of program characteristics is reported in Table 17. There were 109 program characteristics identified for the Occupational Program Area because two were tied for rank 108. Compared to the distribution for respondents classified in the Advanced and Professional Program Area (Table 11), respondents classified in the Occupational Program Area identified approximately 10% more program characteristics related to general information, 6% more program characteristics related to costs/resources, and 6% less program characteristics related to students. The distribution of the program characteristics among the four categories for respondents

Table 16

Information Profile of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Advanced and Professional Program Area

Information Type	Program Characteristics Relating to Information Type
Need and structure	Level of demand for program, clearly stated program objectives, program admission requirements
Size	Number enrolling, percent of total college FTE
Costs	Instructional personnel, total, materials, equipment maintenance, administration, support services, space utilized
Utilization rates	Equipment, space
Support services	Number of support staff, number of library holdings
Entering students	Academic skills level as measured by local, state, and national instruments, types of developmental or remedial assistance desired, major area of study, degree level sought, level of previous academic achievement
Currently enrolled students	Same as for entering students without degree level sought and level of previous academic achievement and adding average GPA and average course load of students in program, number of hours of developmental/remedial work, performance on standardized state tests
Faculty/staff	For both full-time and part-time: ratio of part-time to full-time; level of preparation (degrees held, certification/rank); level of experience (years taught/service, length of service in program); level of productivity (number of student contact hours per term, number of students per term). For full-time: level of productivity (number of course hours taught per term, number of FTE per term, productivity ratio); level of instructional skill (level of use of alternative instructional methods); rate of turnover; level of participation in program decision making; level of compensation; ratio of faculty to student support staff; ratio of faculty/staff to clerical staff
External/internal evaluations	Ratings by accreditation agencies and certification boards, number/types of changes as a result of program evaluation

Table 16-Continued

Information Type	Program Characteristics Relating to Information Type
Quantitative outputs	Number or percent: completing; taking and passing state board or licensure exams; by type of license, certificate, or registration received; holding jobs for which trained; by average time for completion; performance on standardized state and national tests and on local and state instruments; by major area of study; withdrawing
Ratings	Of program completers by employers; of job satisfaction by program completers; of a program's curriculum, facilities/equipment, instructional strategies, staff, and administration by various types of raters; of support services and student services by various types of raters

classified in the Occupational Program Area was similar to the distribution for all respondents reported in Table 4. For the program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Occupational Program Area, the means of the usefulness-ratings ranged from 1.21 to 1.99 (Appendix E).

Table 17

Distribution by Category of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Occupational Program Area

Category	Number of Characteristics	Percentage of Upper Quartile Characteristics
I. Program Characteristics Relating to Students	24	22.0
II. Program Characteristics Relating to Faculty/Staff	28	25.7
III. Program Characteristics Relating to Costs/Resources	23	21.1
IV. Program Characteristics Relating to General Information	34	31.2
	—	—
TOTAL	109	100.0

The program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Occupational Program Area are presented with ranks in the next four tables. Those related to students are reported in Table 18, those related to faculty/staff in Table 19, those related to costs/resources in Table 20, and those related to general information in Table 21.

The top ranked program characteristics by mean usefulness-ratings related to students for respondents classified in the Occupational Program Area (Table 18) were similar to those for respondents classified

Table 18

Program Characteristics Relating to Students (Questionnaire Category I) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Occupational Program Area With Ranks

Ranks	Program Characteristics
5	Number of students enrolling in a program
	Number or percent of entering students:
31	by major area of study
64.5	by type of handicap
72	by career decision status
94	by degree level sought
102.5	by level of awareness of college's programs, services, etc.
	Number or percent of currently enrolled students:
53.5	by major area of study
75.5	by type of handicap
84	by cumulative GPA categories for program-related coursework
86	by number of hours with failing grade
95.5	by career decision status
104.5	by degree level sought
106.5	by average GPA of students in program
106.5	by percent of total college FTE in program
3	Number or percent of students completing a program
	Number or percent of program completers:
8	passing state board or licensure exams
20.5	holding jobs for which trained
28	taking state board or licensure exams
38	by type of license, certificate, or registration received
78	by salary categories
79	by average time taken for completion of a program
95.5	by major area of study
99.5	by employment status
13	Number or percent of students withdrawing from a program

in the Advanced and Professional Program Area (Table 12): number or percent of students completing a program (rank 3), number of students enrolling in a program (rank 5), and number or percent of students withdrawing from a program (rank 13). The exception was the program characteristic "number or percent of program completers passing state board or licensure exams" which had a mean usefulness-rating rank of 8 for respondents classified in the Occupational Program Area and a rank of 55.5 for respondents in the Advanced and Professional Program Area (Table 12). There were no program characteristics which related to the measurement of academic skills in the upper quartile of mean usefulness-ratings for respondents classified in the Occupational Program Area. This contrasted sharply with the number of such measures identified by respondents classified in the Advanced and Professional Program Area (Table 12). Only two program characteristics which related to entering students were in the upper quartile mean usefulness-ratings by both Occupational and Advanced and Professional respondents: number or percent of entering students by major area of study and by degree level sought. Instead of academic measures for testing of entering students, which appeared in the upper quartile mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area (Table 12), respondents classified in the Occupational Program Area rated as most highly useful the number or percent of entering students by type of handicap, by career decision status, and by level of awareness of the college's programs and services. Four of the five program characteristics rated by respondents classified in the Occupational Program Area as highly useful in relation to entering students were rated by the same respondents as highly useful in relation to currently enrolled

students: number or percent of currently enrolled students by major area of study, by type of handicap, by career decision status, and by degree level sought. Only three of the 10 characteristics which related to currently enrolled students rated as highly useful by respondents classified in the Advanced and Professional Program Area were similarly rated by respondents classified in the Occupational Program Area: number or percent of currently enrolled students by major area of study, by average GPA of students in program, and by percent of total college FTE in program. In addition to these characteristics which related to currently enrolled students, respondents classified in the Occupational Program Area rated as highly useful in Occupational program quality-evaluation decision making the number or percent of currently enrolled students by cumulative GPA categories for program-related coursework and by number of hours with failing grade. Although the rank-order differed, there was more agreement among respondents classified in the Occupational Program Area and the Advanced and Professional Program Area regarding program characteristics related to program completers. Six of the 10 program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area which related to program completers were similarly identified by respondents classified in the Occupational Program Area. The differences were that respondents classified in the Occupational Program Area rated number or percent of program completers by salary categories and by employer status as highly useful rather than skills as measured by tests.

Whereas three of the top 10 program characteristics ranked by mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area related to faculty/staff (Table 13), none of the

top 10 program characteristics ranked by mean usefulness-ratings by respondents classified in the Occupational Program Area related to faculty/staff (Table 19). However, although the rank-order differed, all of the program characteristics which related to faculty/staff in the upper quartile of mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area were similarly rated by respondents classified in the Occupational Program Area with one exception: number or

Table 19

Program Characteristics Relating to Faculty/Staff (Questionnaire Category II) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Occupational Program Area With Ranks

Ranks	Program Characteristics
40	Ratio of part-time to full-time faculty/staff
73	Ratio of faculty/staff to clerical staff
89	Ratio of faculty to student support staff
108.5	Ratio of faculty/staff to administrative personnel
	Number or percent of full-time faculty/staff:
15	by number of students per term
18	by average class size
20.5	by years taught/service
23	by number of student contact hours per term
26	by degrees held
29	by number of course hours taught per term
29	by level of participation in program decision-making
30	by length of service in program
37	by productivity ratio
41	by rate of faculty/staff turnover
47	by level of use of alternative instructional methods
86	by number of FTE per term
92	by level of compensation
97	by certification/rank
	Number or percent of part-time faculty/staff:
35	by number of students per term
35	by average class size
47	by number of student contact hours per term
51	by productivity ratio
62	by number of course hours taught per term
64.5	by degrees held
67	by level of use of alternative instructional methods
80	by length of service in a program
88	by years taught/service
108.5	by level of compensation

or percent of part-time faculty/staff by certification/rank. There were some large differences between the Occupational and Advanced and Professional program areas in the mean usefulness-rating rank order for some of the program characteristics. The program characteristic "ratio of part-time to full-time faculty/staff" had a mean usefulness-rating rank of 2 for respondents classified in the Advanced and Professional Program Area and a mean usefulness-rating rank of 40 for respondents classified in the Occupational Program Area. The program characteristic "number or percent of full-time faculty/staff by certification/rank" had a mean usefulness-rating rank of 8 for respondents classified in the Advanced and Professional Program Area and a mean usefulness-rating rank of 97 for respondents classified in the Occupational Program Area. The program characteristic "number or percent of part-time faculty/staff by degrees held" had a mean usefulness-rating rank of 17 for respondents classified in the Advanced and Professional Program Area and a mean usefulness-rating rank of 64.5 for respondents classified in the Occupational Program Area.

In addition to these program characteristics, respondents classified in the Occupational Program Area rated ratio of faculty/staff to administrative personnel as highly useful and three additional program characteristics related to part-time faculty/staff: productivity ratio, number of course hours taught per term, and level of use of alternative instructional methods. Although the rank-order differed slightly, all of the program characteristics rated as most useful by respondents classified in the Occupational Program Area which related to full-time faculty/staff also appeared in the list for part-time faculty/staff except for four characteristics: level of participation in program decision making,

rate of faculty/staff turnover, number of FTE per term, and certification/rank.

Program characteristics related to costs/resources also received high mean usefulness-ratings by respondents classified in the Occupational Program Area (Table 20). Three of the top 10 program characteristics ranked by mean usefulness-ratings by respondents classified in this program area related to costs/resources: cost of materials per total

Table 20

Program Characteristics Relating to Costs/Resources (Questionnaire Category III) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Occupational Program Area With Ranks

Ranks	Program Characteristics
	Total cost:
7	per total program
27	per program FTE
42	per program unduplicated headcount
	Cost of administration:
39	per total program
92	per program unduplicated headcount
99.5	per program FTE
	Cost of instructional personnel:
9	per total program
33	per program FTE
60.5	per program unduplicated headcount
53.5	Cost of support services per total program
	Cost of materials:
6	per total program
53.5	per program unduplicated headcount
56.5	per program FTE
	Cost of equipment maintenance:
44	per total program
102.5	per program FTE
92	Cost of space utilized per total program
49.5	Number of support staff per total program
	Equipment utilization:
45	per total program
98	per program unduplicated headcount
104.5	per program FTE
77	Space utilization per total program
101	Number of library holdings per total program
82	Cost of program evaluation per total program

program (rank 6), total cost per total program (rank 7), and cost of instructional personnel per total program (rank 9). Two of these, total cost per total program and cost of instructional personnel per total program, were of similar mean usefulness-rating rank for respondents classified in the Advanced and Professional Program Area (Table 14), but "cost of materials per total program" was of rank 19 for respondents classified in the Advanced and Professional Program Area. Respondents classified in the Advanced and Professional Program Area rated eight categories of program characteristics related to costs/resources as highly useful when reported per total program, per program FTE, and per program unduplicated headcount (Table 14). Respondents classified in the Occupational Program Area rated as highly useful only five such categories: total cost, cost of administration, cost of instructional personnel, cost of materials, and equipment utilization. For respondents classified in the Occupational Program Area, the order of emphasis for usefulness in program quality-evaluation decision making per total program was cost of materials, total cost, cost of instructional personnel, cost of administration, cost of equipment maintenance, equipment utilization, number of support staff, space utilization, cost of support services, cost of program evaluation, cost of space utilized, and number of library holdings. This order of emphasis differed from the order of emphasis for respondents classified in the Advanced and Professional Program Area (Table 14). Also, the order of emphasis was different by program FTE and by program unduplicated headcount. Cost of program evaluation was the single program characteristic related to costs/resources which appeared in the upper quartile of mean usefulness-ratings by respondents classified in the Occupational Program

Area which did not appear in the upper quartile for respondents classified in the Advanced and Professional Program Area (Table 14).

In contrast to the upper quartile mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area, where only one of the top 10 program characteristics ranked by mean usefulness-ratings related to general information (Table 15), four of the top 10 program characteristics ranked by mean usefulness-ratings by respondents classified in the Occupational Program Area related to general information (Table 21): employer opinion of program completers (rank 1), ratings of a program curriculum by program completers (rank 2), clearly stated program objectives (rank 4), and ratings of program facilities/equipment by faculty/staff (rank 10). In order by mean usefulness-rating rank, these were followed by level of demand for program/service by students (rank 11.5), ratings of program facilities/equipment by program completers (rank 11.5), level of demand for program/service in state (rank 15), ratings of a program curriculum by faculty/staff (rank 15), job satisfaction ratings by program completers (rank 18), and ratings of program instructional strategies by program completers (rank 18).

All of the program characteristics related to general information in the upper quartile of mean usefulness-ratings by respondents classified in the Occupational Program Area had a higher rank than the corresponding program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area (Table 15) except for program admission requirements, ratings of support services, and the three program characteristics which related to student services. Although only one program characteristic (ratings of a program curriculum) rated by all three

Table 21

Program Characteristics Relating to General Information (Questionnaire Category IV) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Occupational Program Area With Ranks

Ranks	Program Characteristics
4	Clearly stated program objectives
71	Program admission requirements
	Level of demand for program/service:
11.5	by students
15	in service area
56.5	in state
32	Ratings by accreditation agencies
47	Ratings by certification boards
	Number/types of changes as a result of:
67	program evaluation
75.5	accreditation studies
1	Employer opinion of program completers
18	Job satisfaction ratings by program completers
	Ratings of a program curriculum:
2	by program completers
15	by faculty/staff
90	by currently enrolled students
	Ratings of program facilities/equipment:
10	by faculty/staff
11.5	by program completers
58.5	by currently enrolled students
	Ratings of program instructional strategies:
18	by program completers
22	by faculty/staff
70	by currently enrolled students
	Ratings of program staff:
35	by program completers
49.5	by faculty/staff
67	by currently enrolled students
	Ratings of program administration:
24	by faculty/staff
86	by program completers
	Ratings of support services:
53.5	by faculty/staff
74	by program completers
82	by currently enrolled students
	Ratings of accessibility of student services:
43	by currently enrolled students
60.5	by program completers
	Ratings of ease of use of student services:
63	by currently enrolled students
82	by program completers
	Ratings of usefulness of student services:
58.5	by currently enrolled students
69	by program completers

rater types (faculty/staff, program completers, currently enrolled students) occurred in the upper quartile of mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area (Table 15), five such program characteristics occurred in the upper quartile of mean usefulness-ratings by respondents classified in the Occupational Program Area. For respondents classified in the Advanced and Professional Program Area, ratings by faculty/staff of program instructional strategies, program facilities/equipment, program administration, and support services had higher mean usefulness-ratings than ratings by either program completers or currently enrolled students (Table 15). Similarly, for respondents classified in the Occupational Program Area, ratings by faculty/staff of three of these four program characteristics had a higher mean usefulness-rating than ratings by either program completers or currently enrolled students. The exception was "ratings of program instructional strategies." For respondents classified in the Occupational Program Area, ratings of this characteristic by program completers had a higher mean usefulness-rating, followed by ratings by faculty/staff, followed by ratings by currently enrolled students. For respondents classified in the Occupational Program Area, as for respondents classified in the Advanced and Professional Program Area, ratings of accessibility, usefulness, and ease of use of student services by currently enrolled students had higher mean usefulness-ratings than ratings by other types of raters.

Three other types of characteristics related to general information were rated as highly useful in program quality-evaluation decision making by respondents classified in the Occupational Program Area: program admission requirements, ratings by accreditation agencies and

certification boards, and number/types of changes as a result of program evaluation and accreditation studies. Except for "number/types of changes as a result of accreditation studies," these same program characteristics occurred in the upper quartile of mean usefulness-ratings by respondents classified in the Advanced and Professional Program Area (Table 15).

In Table 22, the program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Occupational Program Area are arranged into a program quality-evaluation information profile using the same 11 types of information which were used in the program quality-evaluation information profiles for all respondents (Table 9) and for respondents classified in the Advanced and Professional Program Area (Table 16). A comparison of these tables shows clearly the similarities and differences in the information profiles. Although the order of emphasis varied relating to usefulness of the program characteristics in program quality-evaluation decision making, the areas of similarity among all three profiles were the information types of need and structure, size, costs, utilization rates, support services, external/internal evaluations, and ratings. These areas were similar but not exactly the same. For example, within "costs," the program characteristic "program evaluation" occurred for respondents classified in the Occupational Program Area but not in the previous profiles. Each profile was different from the other two profiles but the areas of differences were the same. The differences were in the information types of entering students, currently enrolled students, faculty/staff, and quantitative outputs.

Table 22

Information Profile of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Occupational Program Area

Information Type	Program Characteristics Relating to Information Type
Need and structure	Clearly stated program objectives, level of demand for program, program admission requirements
Size	Number enrolling, percent of total college FTE
Costs	Materials, total, instructional personnel, administration, equipment maintenance, support services, program evaluation, space utilized
Utilization rates	Equipment, space
Support services	Number of support staff, number of library holdings
Entering students	Major area of study, type of handicap, career decision status, degree level sought, level of awareness of college's programs and services
Currently enrolled students	Same as for entering students without level of awareness of college's programs and services and adding information on performance (cumulative GPA categories for program-related coursework, number of hours with failing grade, average GPA of students in program)
Faculty/staff	For both full-time and part-time: ratio of part-time to full-time; level of preparation (degrees held); level of experience (years taught/service, length of service); level of productivity (average class size, number of students, student contact hours, course hours per term, productivity ratio); level of instructional skill (use of alternative instructional methods); level of compensation. For full-time: level of preparation (certification/rank); level of productivity (number of FTE per term); rate of turnover; level of participation in program decision making; ratio to clerical staff and to administrative personnel; ratio of faculty to student support staff
External/internal evaluations	Ratings by accreditation agencies and certification boards, number/types of changes as a result of program evaluation and accreditation studies

Table 22-Continued

Information Type	Program Characteristics Relating to Information Type
Quantitative outputs	Number or percent: completing; taking and passing state board or licensure exams; by type of license, certificate, or registration received; holding jobs for which trained; by employment status, salary categories, and major area of study; by average time for completion; withdrawing
Ratings	Of program completers by employers; of job satisfaction by program completers; of a program's curriculum, facilities/equipment, instructional strategies, staff, and administration by various types of raters; of support services and student services by various types of raters

Student Services Area

The distribution of the program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Student Services Area among the four categories of program characteristics is reported in Table 23. The distribution of the program characteristics related to general information and costs/resources was very similar to that reported for respondents classified in the Occupational Program Area (Table 17). Respondents classified in the Student Services Area identified approximately 8% more program characteristics related to general information and 6% fewer related to costs/resources than did respondents classified in the Advanced and Professional Program Area (Table 11). The percentage of the program characteristics relating to students for respondents classified in the Student Services Area was similar to that for respondents classified in the Advanced and Professional Program Area but was almost 9% higher than that for respondents classified in the Occupational Program Area. The percentage of program characteristics related to faculty/staff was approximately 5% less than that for respondents classified in the Advanced and

Table 23

Distribution by Category of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Student Services Area

Category	Number of Characteristics	Percentage of Upper Quartile Characteristics
I. Program Characteristics Related to Students	33	30.6
II. Program Characteristics Related to Faculty/Staff	19	17.6
III. Program Characteristics Related to Costs/Resources	23	21.3
IV. Program Characteristics Related to General Information	33	30.6
TOTAL	108	100.0

Professional Program Area and 8% less than that for respondents classified in the Occupational Program Area. The means for these program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Student Services Area ranged from 1.33 to 1.96 (Appendix E).

The program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Student Services Area are presented with ranks in the next four tables. Those related to students are presented in Table 24, those related to faculty/staff in Table 25, those related to costs/resources in Table 26, and those related to general information in Table 27.

The top ranked program characteristics by mean usefulness-ratings related to students for respondents classified in the Student Services Area were number or percent of students completing a program (rank 4),

Table 24

Program Characteristics Relating to Students (Questionnaire Category I)
in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classi-
fied in the Student Services Area With Ranks

Ranks	Program Characteristics
17	Number of students enrolling in a program
	Number or percent of entering students:
53.5	by type of handicap
60	by level of awareness of college's programs, services, etc.
61	by major area of study
67.5	by need for various student services
74	by degree level sought
76	by types of developmental or remedial assistance desired
93	by academic skills level as measured by local instruments
103.5	by career decision status
	Number or percent of currently enrolled students:
30	by need for various student services
40	by cumulative GPA categories
55.5	by percent of total college unduplicated headcount in program
57	by major area of study
59	by use of various student services
65.5	by number of hours with failing grade
65.5	by cumulative GPA categories for program-related coursework
75	by average GPA of students in program
81.5	by term GPA categories
87	by career decision status
87	by level of awareness of college's programs, services, etc.
91.5	by type of handicap
107	by percent of total college FTE in program
4	Number or percent of students completing a program
	Number or percent of program completers:
9	passing state board or licensure exams
44	by type of license, certificate, or registration received
55.5	taking state board or licensure exams
71	holding jobs for which trained
7	Number or percent of students withdrawing from a program
	Number or percent of students transferring:
	with associate degree:
72	by upper division cumulative term GPA categories
95	completing a four-year degree
108	by enrollment in a four-year institution
94	without associate degree by average GPA
79	Number or percent of native students by average GPA

number or percent of students withdrawing from a program (rank 7), number or percent of program completers passing state board or licensure exams (rank 9), and number of students enrolling in a program (rank 7)

(Table 24). Although in different rank order, these were the same as the top ranked characteristics related to students for respondents classified in the Occupational Program Area (Table 18). The two program characteristics related to entering students which were in the upper quartile mean usefulness-ratings for both Occupational (Table 18) and Advanced and Professional (Table 12) respondents appeared again in the upper quartile mean usefulness-ratings for respondents classified in the Student Services Area: number or percent of entering students by major area of study and by degree level sought. There were three program characteristics related to entering students which were in the upper quartile mean usefulness-ratings for respondents classified in both the Student Services Area and the Occupational Program Area: number or percent of entering students by type of handicap, by level of awareness of a college's programs and services, and by career decision status. Two program characteristics related to entering students in the upper quartile of mean usefulness-ratings for respondents classified in the Student Services Area were in the upper quartile for respondents classified in the Advanced and Professional Program Area (Table 12): number or percent of entering students by types of developmental or remedial assistance desired and by academic skills level as measured by local instruments. One program characteristic related to entering students was uniquely in the upper quartile of mean usefulness-ratings by respondents classified in the Student Services Area: number or percent of entering students by need for various student services.

Only six of the 13 program characteristics related to currently enrolled students which appeared in the upper quartile of mean

usefulness-ratings for respondents classified in the Student Services Area were common to the program characteristics in the upper quartile of mean usefulness-ratings for respondents classified in either the Advanced and Professional or Occupational Program Areas. These six were: number or percent of currently enrolled students by major area of study, by number of hours with failing grade, by cumulative GPA categories for program-related coursework, by average GPA of students in program, by type of handicap, and by percent of total college FTE in program.

Other program characteristics related to currently enrolled students which were rated as highly useful by respondents classified in the Student Services Area were: number or percent of currently enrolled students by need for various student services, by cumulative GPA categories, by percent of total college unduplicated headcount in program, by use of various student services, by term GPA categories, by career decision status, and by level of awareness of college's programs and services. All four of the program characteristics related to program completers rated as highly useful by respondents classified in the Student Services Area were similarly rated by respondents in both the Advanced and Professional and Occupational Program Areas. Respondents classified in the Student Services Area rated five program characteristics related to transfer students as highly useful in program quality-evaluation decision making: number or percent of native students by average GPA, number or percent of students transferring with an associate degree by upper division cumulative term GPA categories and by completing a four-year degree and by enrollment in a four-year institution, and number or percent of students transferring without an

associate degree by average GPA. More program characteristics related to grades of students (currently enrolled and transfer) were rated as highly useful in program quality-evaluation decision making by respondents classified in the Student Services Area than by respondents classified in either the Advanced and Professional or Occupational Program Areas.

None of the top 10 program characteristics ranked by mean usefulness-ratings by respondents classified in the Student Services Area related to faculty/staff (Table 25). However, all 13 of the program characteristics in the upper quartile of mean usefulness-ratings related to full-time faculty/staff as identified by respondents classified in the

Table 25

Program Characteristics Relating to Faculty/Staff (Questionnaire Category II) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Student Services Area With Ranks

Ranks	Program Characteristics
59	Ratio of part-time to full-time faculty/staff
96.5	Ratio of faculty to student support staff
	Number or percent of full-time faculty/staff:
15	by degrees held
25	by years taught/service
27	by number of course hours taught per term
28	by rate of faculty/staff turnover
31	by number of student contact hours per term
32	by length of service in program
34.5	by number of students per term
34.5	by certification/rank
39	by average class size
43	by productivity ratio
69	by level of participation in program decision making
80	by number of FTE per term
102	by level of compensation
	Number or percent of part-time faculty/staff:
25.5	by degrees held
77.5	by average class size
87	by number of students per term
96.5	by productivity ratio

* Student Services Area were similarly identified by respondents classified in the Advanced and Professional (Table 13) and Occupational Program Areas (Table 19). The only program characteristic rated as highly useful related to full-time faculty/staff by respondents in the latter two program areas which was not so rated by respondents classified in the Student Services Area was number or percent of full-time faculty/staff by level of use of alternative instructional methods. Only four program characteristics related to part-time faculty/staff were in the upper quartile of mean usefulness-ratings for respondents classified in the Student Services Area: number or percent of part-time faculty/staff by degrees held, by average class size, by number of students per term, and by productivity ratio. Two other program characteristics related to faculty/staff appearing in the upper quartile of mean usefulness-ratings for respondents classified in the Student Services Area were ratio of part-time to full-time faculty/staff and ratio of faculty to student support staff. Both of these characteristics had mean usefulness-rating ranks roughly comparable to their mean usefulness-rating ranks by respondents classified in the Occupational Program Area.

Only one of the top 10 program characteristics ranked by mean usefulness-ratings by respondents classified in the Student Services Area related to costs/resources (Table 26): total cost per total program (rank 3). Respondents classified in the Student Services Area rated six categories of program characteristics related to costs/resources as highly useful when reported per total program, per program FTE, and per program unduplicated headcount. These six categories were: total cost, cost of administration, cost of instructional personnel, cost of support services, cost of materials, and cost of space utilized. The order of

emphasis for usefulness in program quality-evaluation decision making per total program was total cost, cost of instructional personnel, cost of materials, cost of administration, cost of support services, number of support staff, cost of space utilized, cost of equipment maintenance, equipment utilization, and space utilization. The order of emphasis was the same per program FTE for the program characteristics to which it applied. The order of emphasis per unduplicated headcount was the same for the program characteristics to which it applied except "cost of support services" was tied with "cost of instructional personnel" for second in rank order. The order of emphasis per total program was different from the order of emphasis for respondents classified in either the Advanced and Professional (Table 14) or the Occupational (Table 20) Program Areas. Number of library holdings, which appeared in the upper quartile of mean usefulness-ratings by respondents classified in the Advanced and Professional and Occupational Program Areas, did not appear in the upper quartile of mean usefulness-ratings by respondents classified in the Student Services Area. Neither did cost of program evaluation, which appeared in the upper quartile of mean usefulness-ratings by respondents classified in the Occupational Program Area.

Five of the top 10 program characteristics, plus three tied for rank 10, ranked by mean usefulness-ratings for respondents classified in the Student Services Area, related to general information (Table 27). These were ratings of accessibility of student services by currently enrolled students (rank 1) and by program completers (rank 5.5), ratings of ease of use of student services by currently enrolled students (rank 11) and by program completers (rank 2), ratings of usefulness of student services by currently enrolled students (rank 5.5), level of demand for

Table 26

Program Characteristics Relating to Costs/Resources (Questionnaire Category III) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Student Services Area With Ranks

Ranks	Program Characteristics
	Total cost:
3	per total program
14	per program FTE
19	per program unduplicated headcount
	Cost of administration:
24	per total program
41.5	per program unduplicated headcount
52	per program FTE
	Cost of instructional personnel:
22.5	per total program
33	per program FTE
37.5	per program unduplicated headcount
	Cost of support services:
26	per total program
37.5	per program unduplicated headcount
70	per program FTE
	Cost of materials:
22.5	per total program
41.5	per program unduplicated headcount
77.5	per program FTE
48.5	Cost of equipment maintenance per total program
	Cost of space utilized:
45.5	per total program
87	per program FTE
87	per program unduplicated headcount
	Number of support staff
33.5	per total program
63.5	per program unduplicated headcount
63.5	Equipment utilization per total program
98	Space utilization per total program

program/service by students (rank 8) and in service area (rank 11), and employer opinion of program completers (rank 11). Respondents classified in the Student Services Area placed slightly more emphasis on ratings of various aspects of a program by program completers than did respondents classified in the Advanced and Professional (Table 15) and Occupational (Table 21) Program Areas. This difference was evident especially in the program characteristic "rating of support services."

Table 27

Program Characteristics Relating to General Information (Questionnaire Category IV) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Student Services Area With Ranks

Ranks	Program Characteristics
16	Clearly stated program objectives
47	Program admission requirements
	Level of demand for program/service:
8	by students
11	in service area
67.5	in state
83	Ratings by accreditation agencies
105.5	Ratings by certification boards
	Number/types of changes as a result of:
73	program evaluation
99.5	accreditation studies
11	Employer opinion of program completers
29	Job satisfaction ratings by program completers
18	Ratings of a program curriculum by program completers
	Ratings of program facilities/equipment:
50	by program completers
87	by faculty/staff
87	by currently enrolled students
	Ratings of program instructional strategies:
99.5	by program completers
103.5	by faculty/staff
	Ratings of program staff:
36	by program completers
81.5	by currently enrolled students
91.5	Ratings of program administration by faculty/staff
	Ratings of support services:
20.5	by program completers
20.5	by currently enrolled students
105.5	by faculty/staff
	Ratings of accessibility of student services:
1	by currently enrolled students
5.5	by program completers
53.5	by program leavers
	Ratings of ease of use of student services:
2	by currently enrolled students
11	by program completers
51	by program leavers
	Ratings of usefulness of student services:
5.5	by currently enrolled students
13	by program completers
62	by program leavers
101	by faculty/staff

Rating of the characteristic by program completers had a mean usefulness-rating rank of 20.5 for respondents classified in the Student Services Area and rating of the characteristic by faculty/staff had a rank of 105.5. For respondents classified in the Advanced and Professional Program Area, rating of the characteristic by program completers did not appear in the top quartile and rating of the characteristic by faculty/staff had a rank of 43. For respondents classified in the Occupational Program Area, rating of the characteristic by program completers had a rank of 74 and rating of the characteristic by faculty/staff had a rank of 53.5. Ratings of accessibility, ease of use, and usefulness of student services by program leavers were rated as highly useful for program quality-evaluation decision making by respondents classified in the Student Services Area. Rating of a program characteristic by program leavers did not appear in the upper quartile mean usefulness-ratings for respondents classified in either the Advanced and Professional or Occupational Program Areas.

In Table 28, the program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Student Services Area are arranged into a program quality-information profile similar to the program quality-evaluation information profiles for all respondents (Table 9) and for respondents classified in the other program areas (Advanced and Professional, Table 16; Occupational, Table 22). In addition to the 11 types of information used in the other profiles, "Transfer Students" was added as an information type in this profile. As in the comparisons of the other profiles, although the order of emphasis varied relating to usefulness of the program characteristics in program quality-evaluation decision making, the areas of similarity were

Table 28

Information Profile of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Student Services Area

Information Type	Program Characteristics Relating to Information Type
Need and structure	Level of demand for program, clearly stated program objectives, program admission requirements
Size	Number enrolling, percent of total college unduplicated headcount, percent of total college FTE
Costs	Total, instructional personnel, materials, administration, support services, space utilized, equipment maintenance
Utilization rates	Equipment, space
Support services	Number of support staff
Entering students	Type of handicap, level of awareness of college's programs and services, major area of study, need for various student services, degree level sought, types of developmental or remedial assistance desired, academic skills level as measured by local instruments, career decision status
Currently enrolled students	Same as entering students without degree level sought and types of assistance desired and academic skills level by local instruments and adding information on performance (cumulative GPA categories, number of hours with failing grade, cumulative GPA categories for program-related coursework, average GPA of students in program, term GPA categories) and number or percent using student services
Faculty/staff	For both full-time and part-time: ratio of part-time to full-time; level of preparation (degrees held); level of productivity (number of students per term, average class size, productivity ratio). For full-time: level of preparation (certification/rank); level of experience (years taught/service, length of service); level of productivity (number of course hours taught, student contact hours and FTE per term); rate of turnover; level of participation in program decision making and level of compensation; ratio of faculty to student support staff
External/internal evaluation	Ratings by accreditation agencies and certification boards, number/types of changes as a result of program evaluation and accreditation studies

Table 28-Continued

Information Type	Program Characteristics Relating to Information Type
Quantitative outputs	Number or percent: completing; taking and passing state board or licensure exams; by type of license, certificate, or registration received; holding jobs for which trained; withdrawing
Transfer students	Number or percent: with associate degree by upper division cumulative GPA categories, completing a four-year degree, by enrollment in a four-year institution; without associate degree by average GPA; number or percent of native students by average GPA
Ratings	Of program completers by employers; of job satisfaction by program completers; of a program's curriculum, facilities/equipment, instructional strategies, staff, and administration by various types of raters; of support services and student services by various types of raters

in the information types of need and structure, size, costs, utilization rates, support services, external/internal evaluations, and ratings.

Again, these areas were similar but not exactly the same. For example, within "Support Services," the program characteristic "number of library holdings" did not appear in this profile as it had in previous profiles. This profile was different from each of the previous profiles in the information types of entering students, currently enrolled students, faculty/staff, quantitative outputs, and transfer students.

Developmental Program Area

Although the number of respondents included in this program area was small ($N = 5$), they represented five different colleges that had a person with primary responsibility in this program area as reflected in a position title such as Chairman of Development Education, Coordinator of Developmental Studies, etc. According to the list of administrators with responsibility for compensatory/developmental education

in the 1981-82 Directory of Florida Community Colleges, there were very few titles reflecting primary responsibility in this program area (Division of Community Colleges, 1981a, p. 71).

The distribution of the program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Developmental Program Area is reported in Table 29. There were 117 instead of 108 program characteristics included because there were 93 with a mean less than or equal to 2.0 and then 24 characteristics with a mean of 2.2. Therefore, these 24 characteristics were included. The means of the usefulness-ratings for these program characteristics ranged from 1.0 to 2.2 (Appendix E). The distribution of the program characteristics was very similar to the distribution reported for respondents classified in the Occupational Program Area (Table 17) except for a

Table 29

Distribution by Category of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Developmental Program Area

Category	Number of Characteristics	Percentage of Upper Quartile Characteristics
I. Program Characteristics Relating to Students	25	21.4
II. Program Characteristics Relating to Faculty/Staff	28	24.0
III. Program Characteristics Relating to Costs/Resources	29	24.8
IV. Program Characteristics Relating to General Information	35	30.0
	—	—
TOTAL	117	100.2

slightly higher percentage (3.7) of program characteristics related to costs/resources. Compared to the distribution for respondents classified in the Advanced and Professional Program Area (Table 11), this distribution had a higher percentage of program characteristics related to general information and costs/resources and a lower percentage of program characteristics related to students. Compared to the distribution for respondents classified in the Student Services Area (Table 23), this distribution had lower percentages of program characteristics related to students and faculty/staff.

The program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Developmental Program Area are presented with ranks in the next four tables. Those related to students are presented in Table 30, those related to faculty/staff in Table 31, those related to costs/resources in Table 32, and those related to general information in Table 33.

None of the program characteristics in the top 10 program characteristics ranked by mean usefulness-ratings for respondents classified in the Developmental Program Area related to students (Table 30). The triad of number of students enrolling, completing, and withdrawing from a program, which appeared in the upper quartile of mean usefulness-ratings for respondents classified in all the program areas already discussed, appeared in this program area also (Tables 12, 18, 24). Respondents classified in the Developmental Area rated as highly useful only three program characteristics related to entering students which were rated similarly by respondents classified in the other program areas discussed. These were number or percent of entering students by type of handicap, by academic skills level as measured by local instruments,

Table 30

Program Characteristics Relating to Students (Questionnaire Category 1)
in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classi-
fied in the Developmental Program Area With Ranks

Ranks	Program Characteristics
76.5	Number of students enrolling in a program
	Number or percent of entering students:
47	by type of handicap
47	by academic skills level as measured by local instruments
76.5	by types of developmental or remedial assistance desired
105.5	by test anxiety levels
105.5	by race classification
	Number or percent of currently enrolled students:
47	by type of handicap
105.5	by types of developmental or remedial assistance desired
105.5	by test anxiety levels
105.5	by race classification
19	Number or percent of students completing a program
	Number or percent of program completers:
27	by type of handicap
47	by race classification
47	by level of awareness of college's programs, services, etc.
76.5	by career decision status
76.5	by academic skills level as measured by local instruments
76.5	by types of developmental or remedial assistance desired
76.5	by self-concept categories
76.5	by test anxiety levels
76.5	by citizenship classification
105.5	by employment status
105.5	by time spent in program
105.5	by academic skills level as measured by national instruments
76.5	Number or percent of students withdrawing from a program
105.5	Number or percent of program leavers by test anxiety levels

and by types of developmental or remedial assistance desired. They rated as highly useful two other program characteristics related to entering students which did not appear in the upper quartile of mean usefulness-ratings for respondents classified in the other program areas: number or percent of entering students by test anxiety levels and by race classification. Except for the program characteristic "academic skills level as measured by local instruments," respondents classified in the Developmental Program Area rated the same program characteristics

as highly useful in relation to currently enrolled students as respondents in the other program areas. For program characteristics related to program completers, they rated as highly useful the same program characteristics as for entering students plus seven others, only three of which were included in the upper quartile of mean usefulness-ratings for respondents classified in any of the other program areas discussed. In addition, number or percent of students withdrawing from a program and number or percent of program leavers were rated as highly useful by respondents classified in this program area.

Only one of the program characteristics in the top 10 program characteristics ranked by mean usefulness-ratings for respondents classified in the Developmental Program Area related to faculty/staff (Table 31): number or percent of full-time faculty/staff by number of student contact hours per term (rank 4.5). However, all 13 of the program characteristics in the upper quartile of mean usefulness-ratings related to full-time faculty/staff as rated by respondents in all the other program areas discussed (Tables 13, 19, 24) were rated similarly by respondents classified in this program area with one additional program characteristic: number or percent of full-time faculty/staff by type of language spoken. For program characteristics related to part-time faculty/staff, respondents classified in this program area rated as highly useful program characteristics similarly rated by respondents in the other program areas discussed previously with the additional characteristic of number of FTE per term and type of language spoken. Respondents classified in this program area rated as highly useful also ratio of part-time to full-time faculty/staff, ratio of faculty/staff to clerical staff, and ratio of faculty/staff to administrative personnel.

Table 31

Program Characteristics Relating to Faculty/Staff (Questionnaire Category II) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Developmental Program Area With Ranks

Ranks	Program Characteristics
47	Ratio of part-time to full-time faculty/staff
76.5	Ratio of faculty/staff to clerical staff
105.5	Ratio of faculty/staff to administrative personnel
	Number or percent of full-time faculty/staff:
4.5	by number of student contact hours per term
12.5	by degrees held
27	by average class size
27	by length of service in program
27	by certification/rank
47	by number of students per term
47	by years taught/service
47	by number of FTE per term
47	by type of language spoken
76.5	by number of course hours taught per term
76.5	by productivity ratio
76.5	by rate of faculty/staff turnover
76.5	by level of participation in program decision making
76.5	by level of compensation
	Number or percent of part-time faculty/staff:
12.5	by number of student contact hours per term
47	by average class size
76.5	by degrees held
76.5	by number of students per term
76.5	by years taught/service
76.5	by length of service in a program
76.5	by certification/rank
76.5	by number of FTE per term
76.5	by type of language spoken
105.5	by productivity ratio
105.5	by level of compensation

Four of the top 10 program characteristics ranked by mean usefulness-ratings for respondents classified in the Developmental Program Area related to costs/resources (Table 32). These were total cost per total program (rank 1.5), cost of instructional personnel (rank 1.5), cost of materials per total program (rank 4.5), and cost of equipment maintenance per total program (rank 4.5). In rank-order by mean usefulness-rating, these were followed by cost of administration per total

Table 32

Program Characteristics Relating to Costs/Resources (Questionnaire Category III) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Developmental Program Area With Ranks

Ranks	Program Characteristics
	Total cost:
1.5	per total program
76.5	per program FTE
76.5	per program unduplicated headcount
	Cost of administration:
12.5	per total program
76.5	per program FTE
76.5	per program unduplicated headcount
	Cost of instructional personnel:
1.5	per total program
76.5	per program FTE
105.5	per program unduplicated headcount
	Cost of support services:
12.5	per total program
105.5	per program FTE
105.5	per program unduplicated headcount
	Cost of materials:
4.5	per total program
76.5	per program FTE
76.5	per program unduplicated headcount
	Cost of equipment maintenance:
4.5	per total program
76.5	per program FTE
76.5	per program unduplicated headcount
27	Cost of space utilized per total program
	Number of support staff:
27	per total program
76.5	per program FTE
105.5	per program unduplicated headcount
	Equipment utilization:
76.5	per total program
76.5	per program FTE
105.5	per program unduplicated headcount
105.5	Space utilization per program FTE
47	Cost of program evaluation per total program
	Cost of needs assessment or other necessary research:
12.5	per total program
105.5	per program FTE

program (rank 12.5), cost of support services per total program (rank 12.5), and cost of needs assessment or other necessary research per total program (rank 12.5). Like respondents classified in the

Occupational Program Area (Table 20), respondents classified in the Developmental Program rated as highly useful cost of program evaluation per total program. The order of emphasis for usefulness in program quality-evaluation decision making per total program was total cost and cost of instructional personnel, cost of materials and cost of equipment maintenance, cost of administration, cost of support services, cost of needs assessment or other necessary research, cost of space utilized and number of support staff, cost of program evaluation, equipment utilization, and space utilization.

There were five characteristics related to general information which appeared in the upper quartile of mean usefulness-ratings by respondents classified in the other program areas discussed previously (Tables 15, 21, 27) that did not appear in the upper quartile of mean usefulness-ratings by respondents classified in the Developmental Program Area (Table 33). These five characteristics were employer opinion of program completers, program admission requirements, ratings by accreditation agencies, ratings by certification boards, and job satisfaction ratings by program completers. Nine program characteristics rated by all three rater types occurred in the upper quartile of mean usefulness-ratings by respondents classified in the Developmental Program Area. Clearly stated program objectives had the highest rank by mean usefulness-ratings for program characteristics related to general information by respondents classified in this program area. This was followed by seven characteristics tied with a rank of 12.5. These were level of demand for program/service in service area, number/types of changes as a result of program evaluation, ratings of a program curriculum by program completers, ratings of program instructional strategies

Table 33

Program Characteristics Relating to General Information (Questionnaire Category IV) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Developmental Program Area With Ranks

Ranks	Program Characteristics
4.5	Clearly stated program objectives
	Level of demand for program/service:
12.5	in service area
27	by students
47	in nation
47	in state
	Number/types of changes as a result of:
12.5	program evaluation
47	accreditation studies
	Ratings of a program curriculum:
12.5	by program completers
27	by faculty/staff
47	by currently enrolled students
	Ratings of program facilities/equipment:
27	by faculty/staff
47	by program completers
47	by currently enrolled students
	Ratings of program instructional strategies:
12.5	by faculty/staff
12.5	by program completers
47	by currently enrolled students
	Ratings of program staff:
12.5	by faculty/staff
27	by program completers
27	by currently enrolled students
	Ratings of program administration:
27	by program completers
27	by faculty/staff
27	by currently enrolled students
	Ratings of support services:
12.5	by currently enrolled students
27	by program completers
105.5	by faculty/staff
	Ratings of accessibility of student services:
47	by currently enrolled students
47	by program completers
105.5	by faculty/staff
	Ratings of ease of use of student services:
47	by currently enrolled students
47	by program completers
105.5	by faculty/staff
	Ratings of usefulness of student services:
47	by currently enrolled students
47	by program completers
105.5	by faculty/staff
105.5	Number of alternative educational methods offered

by program completers and by faculty/staff, ratings of a program staff by faculty/staff, and ratings of support services by currently enrolled students. One characteristic occurred in the upper quartile of mean usefulness-ratings for characteristics related to general information for respondents classified in this program area which had not appeared in the upper quartile for respondents classified in the other program areas discussed: number of alternative educational methods offered.

In Table 34, the program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Developmental Program Area are arranged into a program quality-evaluation information profile using the same 11 types of information which were used in the program quality-evaluation information profiles for all respondents (Table 9) and for respondents classified in the Advanced and Professional (Table 16) and Occupational (Table 22) Program Areas. Comparison of this profile with the others revealed only two areas of similarity: the information types of utilization rates and support services. There were differences in all the other information types in this profile when compared with the profiles for respondents classified in the other program areas.

Community Instructional Services

The distribution of the program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Community Instructional Services Program Area is reported in Table 35. There were 109 instead of 108 program characteristics identified in the upper quartile because three were tied for rank 108. The means of the usefulness-ratings for these program characteristics ranged from 1.38 to 2.48 (Appendix E). Compared to the distribution of program

Table 34

Information Profile of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Developmental Program Area

Information Type	Program Characteristics Relating to Information Type
Need and structure	Clearly stated program objectives, level of demand for program, number of alternative educational methods offered
Size	Number enrolling
Costs	Total and instructional personnel; materials and equipment maintenance; administration, support services, needs assessment and other necessary research; space utilized; program evaluation
Utilization rates	Equipment, space
Support services	Number of support staff
Entering students	Type of handicap, academic skills level as measured by local instruments, types of developmental/remedial assistance desired, test anxiety level, race classification
Currently enrolled students	Same as for entering students without academic skills level as measured by local instruments
Faculty/staff	For both full-time and part-time: ratio of part-time to full-time; level of preparation (degrees held, certification/rank); level of experience (length of service in program, years taught/service); level of productivity (number of students and student contact hours and FTE per term, average class size, productivity ratio); type of language spoken; level of compensation. For full-time: number of course hours taught per term; rate of turnover; level of participation in program decision making; ratio to clerical staff and to administrative personnel
External/internal evaluation	Number/types of changes as a result of program evaluation and accreditation studies

Table 34-Continued

Information Type	Program Characteristics Relating to Information Type
Quantitative outputs	Number or percent: completing; by type of handicap, race and citizenship classification, career decision status, self-concept categories, test anxiety levels, employment status and time spent in program and types of developmental/remedial assistance desired; by academic skills level as measured by local and national instruments; withdrawing; leavers by test anxiety levels
Ratings	Of a program's curriculum, facilities/equipment, instructional strategies, staff, and administration by various types of raters; of support services and student services by various types of raters

characteristics for respondents classified in the other program areas (Tables 11, 17, 23, 29), respondents classified in the Community Instructional Services Program Area identified from 10 to almost 20% more program characteristics related to general information. This distribution had lower percentages of program characteristics related to students and costs/resources than any of the other distributions discussed.

The program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Community Instructional Services Program Area are presented with ranks in the next four tables. Those related to students are reported in Table 36, those related to faculty/staff in Table 37, those related to costs/resources in Table 38, and those related to general information in Table 39.

For the program characteristics related to students (Table 36), the three program characteristics with the highest ranks by mean usefulness-ratings for respondents classified in this program area were the familiar triad of number of students enrolling in a program (rank 3), number or percent of students completing a program (rank 13), and

Table 35

Distribution by Category of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Community Instructional Services Program Area

Category	Number of Characteristics	Percentage of Upper Quartile Characteristics
I. Program Characteristics Relating to Students	21	19.3
II. Program Characteristics Relating to Faculty/Staff	22	20.2
III. Program Characteristics Relating to Costs/Resources	21	19.3
IV. Program Characteristics Relating to General Information	45	41.5
	—	—
TOTAL	109	100.3

number or percent of students withdrawing from a program (rank 16). Respondents classified in the Community Instructional Services Area rated as highly useful only three program characteristics related to entering students which were rated similarly by respondents classified in the other program areas discussed (Tables 12, 18, 24, 30). These were number or percent of entering students by type of handicap, by level of awareness of college's programs and services, and by career decision status. They rated as highly useful three other program characteristics related to entering students which did not appear in the upper quartile of mean usefulness-ratings of program characteristics related to entering students for respondents classified in the other program areas. These three characteristics were number or percent of entering students by employment status, by age classification, and holding jobs for which trained. Only three program characteristics related to currently

Table 36

Program Characteristics Relating to Students (Questionnaire Category I)
in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classi-
fied in the Community Instructional Services Program Area With Ranks

Ranks	Program Characteristics
3	Number of students enrolling in a program
	Number or percent of entering students:
67.5	by type of handicap
80	by level of awareness of college's programs, services, etc.
87.5	by career decision status
99.5	by employment status
108	by age classification
108	holding jobs for which trained
	Number or percent of currently enrolled students:
80	by percent of total college unduplicated headcount in program
87.5	by type of handicap
105	by level of awareness of college's programs, services, etc..
13	Number or percent of students completing a program
	Number or percent of program completers:
23	passing state board or licensure exams
37	taking state board or licensure exams
42	by employment status
71	by type of license, certificate, or registration received
75.5	holding jobs for which trained
87.5	by time spent in program
93.5	by average time taken for completion of a program
99.5	by career decision status
16	Number or percent of students withdrawing from a program
67.5	Number or percent of program leavers by employment status

enrolled students appeared in the upper quartile of mean usefulness-ratings for respondents classified in this program area. These were number or percent of currently enrolled students by percent of total college unduplicated headcount in program, by type of handicap, and by level of awareness of college's programs and services. Four of the program characteristics related to program completers rated as highly useful by respondents classified in the Community Instructional Services Program Area were similarly rated by respondents in the Advanced and Professional, Occupational, and Student Services Program Areas. These

were number or percent of program completers passing state board or licensure exams; taking state board or licensure exams; by type of license, certificate, or registration received; and holding jobs for which trained. Four other program characteristics related to program completers rated as highly useful by respondents in this program area were number or percent of program completers by employment status, by time spent in program, by average time taken for completion of a program, and by career decision status. All of these were rated as highly useful by respondents classified in one or more of the other program areas. One program characteristic related to program leavers occurred in the upper quartile of mean usefulness-ratings for respondents classified in the Community Instructional Services Program Area which did not appear in the upper quartile of mean usefulness-ratings for the other program areas discussed previously: number or percent of program leavers by employment status.

For respondents classified in the Community Instructional Services Program Area, only eight characteristics in the upper quartile of mean usefulness-ratings related to full-time faculty/staff, but 14 characteristics related to part-time faculty/staff (Table 37). All of the program characteristics related to full-time and part-time faculty/staff except two which have appeared, although in different rank-order, in the upper quartile mean usefulness-ratings for respondents classified in one or more of the other program areas previously discussed (Tables 13, 19, 25, 31). The two exceptions were number or percent of part-time faculty/staff by level of public service and by level of participation in program decision making. In comparison with the ranks of the mean usefulness-ratings by respondents classified in the other program

Table 37

Program Characteristics Relating to Faculty/Staff (Questionnaire Category II) in the Upper Quartile of Mean Usefulness-Ratings by All Respondents Classified in the Community Instructional Services Program Area With Ranks

Ranks	Program Characteristics
	Number or percent of full-time faculty/staff:
39	by average class size
56.5	by number of student contact hours per term
56.5	by productivity ratio
64	by degrees held
64	by number of students per term
64	by years taught/service
82	by level of compensation
95	by rate of faculty/staff turnover
	Number or percent of part-time faculty/staff:
11	by years taught/service
18.5	by average class size
25.5	by degrees held
29.5	by productivity ratio
29.5	by length of service in a program
42	by number of students per term
48.5	by number of student contact hours per term
48.5	by level of compensation
59.5	by rate of faculty/staff turnover
62	by certification/rank
75.5	by level of public service
99.5	by level of use of alternative instructional methods
99.5	by number of course hours taught per term
105	by level of participation in program decision making

areas, the ranks of the program characteristics related to part-time faculty/staff for respondents classified in this program area were higher than the ranks of the program characteristics related to full-time faculty/staff.

The program characteristic with the highest mean usefulness-rating by respondents classified in the Community Instructional Services Program Area was total cost per total program (Table 38). The order of emphasis for usefulness in program quality-evaluation decision making for the characteristics related to costs/resources per total program

Table 38

Program Characteristics Relating to Costs/Resources (Questionnaire Category III) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Community Instructional Services Program Area With Ranks

Ranks	Program Characteristics
	Total cost:
1	per total program
29.5	per program unduplicated headcount
37	per program FTE
	Cost of administration:
18.5	per total program
71	per program FTE
	Cost of instructional personnel:
8.5	per total program
33.5	per program unduplicated headcount
45.5	per program FTE
	Cost of support services:
25.5	per total program
51	per program FTE
67.5	per program unduplicated headcount
	Cost of materials:
11	per total program
37	per program FTE
42	per program unduplicated headcount
48.5	Cost of equipment maintenance per total program
	Cost of space utilized:
59.5	per total program
105	per program FTE
33.5	Number of support staff per total program
87.5	Space utilization per total program
59.5	Cost of needs assessment or other necessary research per total program
99.5	Cost of program evaluation per total program

was total cost, cost of instructional personnel, cost of materials, cost of administration, number of support staff, cost of equipment maintenance, cost of space utilized, cost of needs assessment or other necessary research, space utilization, and cost of program evaluation. The program characteristic "equipment utilization," which appeared in the upper quartile of mean usefulness-ratings for respondents classified in all the other program areas (Tables 14, 20, 26, 32), did not appear in

the upper quartile of mean usefulness-ratings for respondents classified in this program area. Also, similar to respondents classified in the Student Services Area and Developmental Program Area, respondents classified in this program area did not rate number of library holdings as highly useful. They did rate as highly useful cost of program evaluation and cost of needs assessment or other necessary research, as did the respondents classified in the Developmental Program Area. Respondents classified in the Occupational Program Area rated cost of program evaluation as highly useful also.

Six of the top 10 program characteristics, plus one tied for rank 10, ranked by mean usefulness-ratings by respondents classified in the Community Instructional Services Program Area related to general information (Table 39). These were clearly stated program objectives (rank 2), level of demand for program/service in service area (rank 4.5) and by students (rank 4.5), ratings of program instructional strategies by faculty/staff (rank 6), ratings of a program curriculum by program completers (rank 7), ratings of program facilities/equipment by faculty/staff (rank 8), and employer opinion of program completers (rank 11). For respondents classified in this program area, ratings of a program curriculum and of program facilities/equipment were rated as highly useful for five types of raters: program completers, faculty/staff, currently enrolled students, the community (general), and program leavers. For program instructional strategies, program staff, accessibility of student services, and ease of use of student services, ratings by program leavers were rated as highly useful by respondents in this program area. Ratings of these characteristics by program completers, faculty/staff, and currently enrolled students were rated as highly

Table 39

Program Characteristics Relating to General Information (Questionnaire Category IV) in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Community Instructional Services Program Area With Ranks

Ranks	Program Characteristics
2	Clearly stated program objectives
87.5	Program admission requirements
	Level of demand for program/service:
4.5	in service area
4.5	by students
87.5	in state
71	Ratings by accreditation agencies
29.5	Ratings by certification boards
33.5	Number/types of changes as a result of program evaluation
11	Employer opinion of program completers
53.5	Employer opinion of program non-completers
14.5	Job satisfaction ratings by program completers
99.5	Job satisfaction ratings by non-completers
	Ratings of a program curriculum:
7	by program completers
14.5	by faculty/staff
25.5	by currently enrolled students
75.5	by community (general)
108	by program leavers
	Ratings of program facilities/equipment:
8.5	by faculty/staff
18.5	by program completers
33.5	by currently enrolled students
75.5	by program leavers
99.5	by community (general)
	Ratings of program instructional strategies:
6	by faculty/staff
21.5	by program completers
53.5	by currently enrolled students
99.5	by program leavers
	Ratings of program staff:
21.5	by faculty/staff
48.5	by program completers
59.5	by currently enrolled students
87.5	by program leavers
	Ratings of program administration:
18.5	by faculty/staff
75.5	by currently enrolled students
	Ratings of support services:
25.5	by faculty/staff
87.5	by currently enrolled students

Table 39-Continued

Ranks	Program Characteristics
	Ratings of accessibility of student services:
42	by currently enrolled students
53.5	by faculty/staff
67.5	by program completers
87.5	by program leavers
	Ratings of ease of use of student services:
42	by currently enrolled students
53.5	by faculty/staff
75.5	by program completers
87.5	by program leavers
	Ratings of usefulness of student services:
45.5	by faculty/staff
80	by currently enrolled students
93.5	by program completers

useful also by respondents classified in this program area. Two other characteristics related to program non-completers were rated as highly useful by respondents classified in this program area. These were employer opinion of program non-completers and job satisfaction ratings by non-completers. Ratings of program non-completers and by program non-completers and ratings by the community (general) did not appear in the upper quartile of mean usefulness-ratings for respondents classified in the other program areas discussed (Tables 15, 21, 27, 33).

Also, the rating of any aspect of a program by program leavers did not appear in the upper quartile of mean usefulness-ratings by respondents classified in the other program areas except for respondents classified in the Student Services Area. They rated ratings of various aspects of student services by program leavers as highly useful (Table 27).

In Table 40, the program characteristics in the upper quartile of mean usefulness-ratings by respondents classified in the Community Instructional Services Program Area are arranged into a program quality-evaluation information profile using the same 11 types of information

Table 40

Information Profile of Program Characteristics in the Upper Quartile of Mean Usefulness-Ratings by Respondents Classified in the Community Instructional Services Program Area

Information Type	Program Characteristics Relating to Information Type
Need and structure	Clearly stated program objectives, level of demand for program, program admission requirements
Size	Number enrolling, percent of total college unduplicated headcount
Costs	Total, instructional personnel, materials, administration, equipment maintenance, support services, space utilized, needs assessment or other necessary research, program evaluation
Utilization rates	Space
Support services	Number of support staff
Entering students	Type of handicap, level of awareness of college's programs and services, career decision and employment status, age classification, holding jobs for which trained
Currently enrolled students	Type of handicap, level of awareness of college's programs and services
Faculty/staff	For both full-time and part-time: level of preparation (degrees held); level of experience (years taught/service); level of productivity (average class size, number of students and student contact hours per term, productivity ratio); level of compensation; rate of faculty/staff turnover. For part-time: level of preparation (certification/rank); level of experience (length of service in program); level of productivity (number of course hours taught per term); level of instructional skill (use of alternative instructional methods); level of public service; level of participation in program decision making
External/internal evaluations	Ratings by accreditation agencies and certification boards, number/types of changes as a result of program evaluation

Table 40-Continued

Information Types	Program Characteristics Relating to Information Type
Quantitative outputs	Number or percent: completing; taking and passing state board or licensure exams; by employment and career decision status; by type of license, certificate, or registration received; holding jobs for which trained; by time spent in program and average time taken for completion; withdrawing; program leavers by employment status
Ratings	Of program completers and non-completers by employers; of job satisfaction by program completers and non-completers; of a program's curriculum, facilities/equipment, instructional strategies, staff, and administration by various types of raters; of support services and student services by various types of raters

which were used in the program quality-evaluation information profiles for all respondents (Table 9) and for respondents classified in the Advanced and Professional, Occupational, and Developmental Program Areas (Tables 16, 22, 34). Comparison of this information profile with the other information profiles revealed few areas of similarity. The information type of need and structure was the same as that for respondents classified in all the other program areas except for the Developmental Program Area. The information type of support services was the same as that for respondents classified in the Student Services Area (Table 28) and Developmental Program Area (Table 34). The information type of external/internal evaluations was the same as that for respondents classified in the Advanced and Professional Program Area. Other than these few similarities, all the other areas of information types for this information profile were different from those of respondents classified in the other program areas.

Summary

These study results, based upon the ratings of various program characteristics for degree of usefulness in program quality-evaluation decision making, show that there is no single information profile for program quality-evaluation decision making. Instead, these results show multiple multi-variate information profiles for program quality-evaluation decision making varying across program areas with some areas of similarity (Tables 16, 22, 28, 34, 40). These results show that for all of the program areas, program characteristics are identified as highly useful across all categories of program characteristics: students, faculty/staff, costs/resources, and general information (Tables 12, 17, 23, 29, 35). These results show that across all program areas, the program characteristics identified as highly useful can be organized into an information profile of 11 types of information, with an additional type—transfer students—for the Student Services Area: need for and structure of a program, size, costs, utilization rates, support services, information on entering students, information on currently enrolled students, information on faculty/staff, information from external/internal evaluations, quantitative outputs, and ratings.

Conclusions drawn from these results are discussed in the following chapter.

CHAPTER V SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Summary

Increased emphasis on accountability and quality in higher education has fostered numerous attempts to quantify and define quality. Regardless of the outcomes of these attempts, the determination of educational quality involves decision making by responsible administrators. The decision-making process requires the use of information describing the educational program being assessed. The problem arises in determining what information administrators consider useful for program quality-evaluation decision making.

The problem in the study was to utilize the Stufflebeam model of education evaluation to identify measures of quality for use in Florida community colleges as indicated by administrators' perceptions of the usefulness of various program characteristics for program quality-evaluation decision making. The study was based on the Stufflebeam model of educational evaluation, in which the primary step was the delineation of information useful for educational decision making. The particular decision of concern in the study was the assessment of program quality with the responsible decision maker being the respective program administrator.

A survey design was chosen for the study. A questionnaire was developed to collect various background data as well as the usefulness-ratings of the program characteristics. This study was a part of a

larger project conducted by the Florida Community/Junior College Inter-Institutional Research Council to identify quality indicators for Florida's community colleges.

The sample population for this study consisted of all administrators in Florida's community college system who had some instructional or student personnel services responsibility and were identified on their college's yearly personnel report as administrative, managerial, or professional. Lists of these administrators were compiled by study coordinators at each college. The study coordinators at each college distributed and collected the questionnaires. Responses were received from 450 of the 631 identified administrators representing 24 of Florida's 28 community colleges for a response rate of 71.3%. The participating administrators rated 434 program characteristics for degree of usefulness in program quality-evaluation decision making. The rating scale ranged from one, indicating the program characteristic was considered "essential" in making a judgement about the quality of a program, to four, indicating the program characteristic was considered of "little or no use" or "not applicable" in arriving at a judgement of the quality of a program.

Means were calculated for each program characteristic for all respondents and for respondents in each program area. (See Appendix A for a description of the program areas.) Using the means, ranks were calculated for the program characteristics for all respondents and for respondents in each program area. Spearman rank-order correlation coefficients were calculated for the upper quartile of program characteristics ranked by the mean usefulness-ratings for all respondents and for respondents in each program area.

The study was designed to accomplish four tasks. The first task was to identify what program characteristics were considered most useful for program quality-evaluation decision making by administrators in Florida public community colleges. The analysis of the data revealed that all of the program characteristics in the upper quartile as ranked by mean usefulness-ratings for all respondents had a rating on the "essential" side of the rating scale (Table 4). A wide variety of program characteristics was included with all four categories of program characteristics represented: students, faculty/staff, costs/resources, and general information (Table 4 to Table 8).

The second task was to identify what program characteristics were considered most useful for program quality-evaluation decision making for administrators representing the five program areas of a comprehensive community college (Advanced and Professional, Occupational, Developmental, Community Instructional Services, and Student Services). Analysis of the data revealed numerous program characteristics representing all four categories of information were perceived as highly useful by administrators representing each of the program areas (Tables 11 to 15, 17 to 21, 23 to 27, 29 to 33, and 35 to 39).

The third task was to develop information profiles consisting of the program characteristics considered most useful for program quality-evaluation decision making by each program area. As was previously noted, analysis of the data by all respondents and by respondents classified into the five program areas revealed numerous program characteristics rated as highly useful for program quality-evaluation decision making. For all respondents and for respondents classified into the five program areas, the program characteristics in the upper

quartile of ranked mean usefulness-ratings were organized into information profiles using 11 types of information for all program areas except Student Services which required a 12th type of information (Table 9, Table 16, Table 22, Table 28, Table 34, and Table 40). The information types included: need for and structure of a program, size, costs, utilization rates, support services, information on entering students, information on currently enrolled students, information on faculty/staff, information from external/internal evaluations, quantitative output, and ratings. Administrators indicated that they could not make a judgement or would feel hindered in making a judgement about the quality of a program without considering these aspects of a program.

The fourth task was to determine if community college administrators representing the five program areas differed in the program characteristics they identified as most useful for program quality-evaluation decision making. The Spearman rank-ordered correlation coefficients calculated between the five program areas indicated considerable variability in the degree of similarity in the ranks of the program characteristics across the program areas (Table 10). The areas of differences in the information profiles for each of the five program areas were discussed. Although many of the characteristics in the top quartile of the ranked mean usefulness-ratings were common across all five program areas, the rank-order of program characteristics differed.

Conclusions drawn from this analysis follow.

Conclusions

From the study results, as reported in Chapter IV, the following conclusions are drawn:

1. Multiple program characteristics were identified as highly useful for program quality-evaluation decision making as determined by the upper quartile mean usefulness-ratings for all administrators participating in this study. All program characteristics in the upper quartile of ranked mean usefulness-ratings had a mean usefulness-ratings on the essential side of the rating scale.

2. Program characteristics from all four categories of program characteristics (students, faculty/staff, costs/resources, general information) were identified by administrators as highly useful in program quality-evaluation decision making.

3. The program characteristics identified as highly useful by administrators varied when administrators were classified into the five program areas (Advanced and Professional, Occupational, Developmental, Community Instructional Services, Student Services).

4. When ranked by mean usefulness-ratings, the rank-order of program characteristics varied across administrators classified into the five program areas.

5. The program characteristics identified as highly useful by administrators classified into the five program areas were distributed differently among the four categories of program characteristics.

6. The program characteristics identified as highly useful by all administrators and by administrators classified into the Advanced and Professional, Occupational, Developmental, and Community Instructional Services program areas may be organized into an information profile of 11 types of information: need for and structure of a program, size, costs, utilization rates, support services, information on entering students, information on currently enrolled students,

information on faculty/staff, information from external/internal evaluations, quantitative output, and ratings.

7. The program characteristics identified as highly useful by administrators classified in the Student Services Area may be organized into an information profile using the same 11 types of information as the other program areas with one additional type of information: transfer students.

Recommendations

Although other parameters, such as limited fiscal resources or cost-effectiveness, should be considered in the implementations of any recommendations, the following recommendations are made on the bases of the results of this study:

1. Program quality evaluation in Florida's community college system should be designed and conducted by program area and not by total system.
2. Program quality-evaluation decision-making information systems should be designed to provide the multiple information identified in this study as highly useful by administrators per program area.
3. The results of this study should be considered in the development of program quality indicators for the Florida Community College System.
4. Using the results of this study, existing information systems in Florida's community colleges should be reviewed for usefulness in program quality-evaluation decision making.
5. Using the results of this study, Florida's Community College Management Information System should be reviewed for usefulness in program quality-evaluation decision making.

Recommendations for Further Study

1. This study should be replicated in other community college systems.
2. A study should be conducted to determine the degree of availability, to the responsible administrators, of the program characteristics identified by this study as useful for program quality-evaluation decision making.
3. The data collected in this study should be analyzed for the second, third, and fourth quartiles of ranked mean usefulness-ratings in the same manner as the first quartile to identify similarities or differences among the quartiles.
4. The methodology used in this study should be used to refine the program quality-evaluation decision making information needs at each community college.
5. The methodology used in this study should be used to identify the program quality-evaluation information needs for other segments of Florida's educational system including K-12 and the State University System.
6. The methodology used in this study should be used to identify the information requirements for other types of administrative or managerial decisions.

APPENDIX A
DESCRIPTIONS OF THE PROGRAM AREAS

Program Areas

1. Advanced and Professional Program Area - commonly referred to as university parallel, the first two years of a baccalaureate program. Included in this group were respondents classified with position codes 16-20, 22, 25, and 29.

2. Occupational Program Area - or vocational-technical education, terminal certificate or degree programs preparing students for employment in a specific trade or field. Included in this group were respondents classified with position codes 21, 23, 24, 26, 27, and 28.

3. Community Instructional Services Program Area - programs of short, credit, or noncredit classes designed to provide enrichment for students. Included in this area were respondents classified with position code 29.

4. Developmental Program Area - or compensatory education, designed to assist students in improving deficient basic skills necessary for program required work. Included in this area were respondents classified with position codes 33 and 34.

5. Student Services Program Area - various auxiliary services provided to students facilitating their progress through one of the academic areas including such services as counseling, student activities, admissions, financial aid, etc. Included in this group were respondents classified with position codes 36-46.

APPENDIX B
PERSONS INCLUDED IN REVIEW PANEL USED IN REFINING THE LIST OF
PROGRAM CHARACTERISTICS AND THE STUDY QUESTIONNAIRE
(IRC INSTITUTIONAL REPRESENTATIVES FOR 1980-81)

Dr. Robert Lawton
Director of Institutional Research
Brevard Community College

Dr. Martha Mehallis
Director of Institutional Research
Broward Community College

Dr. Wallace Bell
Research Associate
Division of Community College
Florida Department of Education

Dr. James Newton
Dean of Basic Sciences
Edison Community College

Mr. Ivie Burch
Assistant to the President
Gulf Coast Community College

Mr. Tom Middaugh
Research Associate
Hillsborough Community College

Dr. Lester R. Ruth
Director of Research
Lake-Sumter Community College

Dr. John Losak
Dean of Institutional Research
Miami-Dade Community College

Dr. Hugh Turner
Vice-President
Pasco-Hernando Community College

Dr. Tom Delaino
Director of Research and Planning
Santa Fe Community College

APPENDIX B (continued)

Mr. A. Norris Miner
Director of Institutional Research
Seminole Community College

Dr. James R. Richburg
Vice-President for Educational Services
Valencia Community College

Dr. John Nickens
Associate Director
Florida Community/Junior College
Inter-Institutional Research Council

APPENDIX C
QUESTIONNAIRE

PROGRAM QUALITY INDICATORS PROJECT QUESTIONNAIRE

STEP 1

Print or type:

YOUR NAME _____

YOUR POSITION _____

NAME OF COLLEGE _____

STEP 2

You may use various information (program characteristics) to evaluate the quality of academic or student support services programs. The purpose of this questionnaire is to determine your rating of the USEFULNESS of these characteristics in evaluating program quality. Rating choices are provided on a loose insert for quick reference.

The program characteristics are organized into four categories concerning information about:

I. Students II. Faculty/Staff III. Costs/Resources IV. General

In each category you are to rate each characteristic for DEGREE OF USEFULNESS in making QUALITY-EVALUATION DECISIONS about programs. Examples are given for each category.

Within each category space is provided for you to add characteristics. Rate any added characteristic in the same manner as described for other characteristics in the category.

SCAN THE ENTIRE QUESTIONNAIRE BEFORE YOU BEGIN RATING.

PLEASE USE A PENCIL FOR YOUR RESPONSES.

DIRECT ANY QUESTIONS REGARDING THE QUESTIONNAIRE THROUGH YOUR COLLEGE'S PROJECT COORDINATOR TO THE IRC.

STEP 3

In the list below, check one or more program areas to indicate the perspective you will use in rating the characteristics for degree of usefulness in making quality-evaluation decisions about programs.

___ General (No specific program area in mind) ___ Advanced and Professional

___ Occupational ___ Developmental ___ Community Instructional Services

___ Student Support Services ___ Other: _____
(Please specify)



COOPERATION FOR PROGRESS THROUGH RESEARCH
Florida Community Junior College Intercollegiate Research Council

CONTINUE ON NEXT PAGE

1. PROGRAM CHARACTERISTICS RELATING TO STUDENTS

STUDENT CLASSIFICATIONS

- ENTERING * students at the time they begin a program
- CURRENTLY ENROLLED * all students currently enrolled in a program, not just those beginning a program
- COMPLETERS * students who have received a degree or certificate, finished an orientation program, etc.
- LEAVERS * students who have withdrawn or otherwise left a program without officially completing it

FOR EACH CHARACTERISTIC, IN EACH OF THE FOUR COLUMNS OF STUDENT CLASSIFICATIONS WRITE A NUMBER SELECTED FROM THE RATING CHOICES (LOOSE INSERT) TO INDICATE YOUR OPINION OF THAT CHARACTERISTIC'S USEFULNESS IN MAKING QUALITY-EVALUATION DECISIONS ABOUT PROGRAMS.

EXAMPLE

	entering	currently enrolled	completers	leavers
employment status	05 <u>3</u>	<u>3</u>	<u>1</u>	<u>4</u>

From the perspective checked in STEP 3:

The "3" in the "entering" column and the "3" in the "currently enrolled" column indicate an opinion that the information on employment status of ENTERING and CURRENTLY ENROLLED students has "some usefulness" in making quality-evaluation decisions about programs. The "1" in the "completers" column and the "4" in the "leavers" column indicate respectively the opinions that information on employment status of COMPLETERS is "essential" and of LEAVERS is of "little or no usefulness" (or "not applicable") in making quality-evaluation decisions about programs.

CHARACTERISTICS

STUDENT CLASSIFICATIONS

Percent or number of students by:	entering	currently enrolled	completers	leavers
sex classification	01	—	—	—
age classification	02	—	—	—
race classification	03	—	—	—
marital status	04	—	—	—
employment status	05	—	—	—
citizenship classification	06	—	—	—
household income classification	07	—	—	—
commuting distance categories	08	—	—	—
educational status of family	09	—	—	—

CONTINUE ON NEXT PAGE

(CONTINUE RATING EACH STUDENT-RELATED PROGRAM CHARACTERISTIC FOR DEGREE OF USEFULNESS IN MAKING QUALITY-EVALUATION DECISIONS ABOUT PROGRAMS FROM PERSPECTIVE CHECKED IN STEP 3.)

CHARACTERISTICS	STUDENT CLASSIFICATIONS			
	entering	currently enrolled	completers	leavers
Percent or number of students by:				
military service classification	<u>10</u> _____	_____	_____	_____
language spoken in home	<u>11</u> _____	_____	_____	_____
parents' occupational categories	<u>12</u> _____	_____	_____	_____
source of financial support	<u>13</u> _____	_____	_____	_____
type of handicap	<u>14</u> _____	_____	_____	_____
career decision status	<u>15</u> _____	_____	_____	_____
major area of study	<u>16</u> _____	_____	_____	_____
type of high school diploma	<u>17</u> _____	_____	_____	_____
degree level sought	<u>18</u> _____	_____	_____	_____
part time/full time classification	<u>19</u> _____	_____	_____	_____
number of hours enrolled	<u>20</u> _____	_____	_____	_____
number of hours completed	<u>21</u> _____	_____	_____	_____
number of hours withdrawn	<u>22</u> _____	_____	_____	_____
number of hours incomplete	<u>23</u> _____	_____	_____	_____
number of hours with failing grade	<u>24</u> _____	_____	_____	_____
number of hours of developmental/ remedial work	<u>25</u> _____	_____	_____	_____
number of hours repeated	<u>26</u> _____	_____	_____	_____
term GPA categories	<u>27</u> _____	_____	_____	_____
cumulative GPA categories	<u>28</u> _____	_____	_____	_____
cumulative GPA categories for program related course work	<u>29</u> _____	_____	_____	_____
number of CLEP hours earned	<u>30</u> _____	_____	_____	_____
amount of time since last formal educational experience	<u>31</u> _____	_____	_____	_____
level of previous academic achievement	<u>32</u> _____	_____	_____	_____
number of years of related work	<u>33</u> _____	_____	_____	_____

CONTINUE ON NEXT PAGE

(CONTINUE RATING EACH STUDENT-RELATED PROGRAM CHARACTERISTIC FOR DEGREE OF USEFULNESS IN MAKING QUALITY-EVALUATION DECISIONS ABOUT PROGRAMS FROM PERSPECTIVE CHECKED IN STEP 3.)

<u>CHARACTERISTICS</u>	<u>STUDENT CLASSIFICATIONS</u>			
	entering	currently enrolled	completers	leavers
Percent or number of students by:				
level of awareness of college's programs, services, etc.	<u>34</u> —	—	—	—
I.Q. categories	<u>35</u> —	—	—	—
personality types	<u>36</u> —	—	—	—
self-concept categories	<u>37</u> —	—	—	—
test anxiety levels	<u>38</u> —	—	—	—
level of financial assistance desired	<u>39</u> —	—	—	—
types of developmental or remedial assistance desired	<u>40</u> —	—	—	—
level of public service involvement (however measured)	<u>41</u> —	—	—	—
level of involvement in high school activities	<u>42</u> —	—	—	—
academic skills level as measured by local instruments	<u>43</u> —	—	—	—
academic skills level as measured by state instruments	<u>44</u> —	—	—	—
academic skills level as measured by national instruments	<u>45</u> —	—	—	—
scholastic honors, awards, or memberships earned (scholarships, honorary societies, etc.)	<u>46</u> —	—	—	—
holding jobs for which trained	<u>47</u> —	—	—	—
salary categories	<u>48</u> —	—	—	—
rate or number of legal violations	<u>49</u> —	—	—	—
time spent in program	<u>50</u> —	—	—	—
number of jobs held since leaving program	<u>51</u> —	—	—	—
performance on standardized state tests	<u>52</u> —	—	—	—
performance on standardized national tests	<u>53</u> —	—	—	—

CONTINUE ON NEXT PAGE

(CONTINUE RATING EACH STUDENT-RELATED PROGRAM CHARACTERISTIC FOR DEGREE OF USEFULNESS IN MAKING QUALITY-EVALUATION DECISIONS ABOUT PROGRAMS FROM PERSPECTIVE CHECKED IN STEP 3.)

CHARACTERISTICS	STUDENT CLASSIFICATIONS			
	entering	currently enrolled	completers	leavers
Percent or number of students by:				
use of various student services	<u>54</u> <u> </u>	<u> </u>	<u> </u>	<u> </u>
need for various student services	<u>55</u> <u> </u>	<u> </u>	<u> </u>	<u> </u>
PLEASE NOTE FOR THE FOLLOWING CHARACTERISTICS A SINGLE STUDENT CLASSIFICATION IS IMPLIED				
Number of students enrolling in a program	<u>56</u> <u> </u>	<u>X</u>	<u>X</u>	<u>X</u>
Percent of total college FTE in program	<u>57</u> <u>X</u>	<u> </u>	<u>X</u>	<u>X</u>
Percent of total college unduplicated headcount in program	<u>58</u> <u>X</u>	<u> </u>	<u>X</u>	<u>X</u>
Average GPA of students in program	<u>59</u> <u>X</u>	<u> </u>	<u>X</u>	<u>X</u>
Average course load for students in program	<u>60</u> <u>X</u>	<u> </u>	<u>X</u>	<u>X</u>
Number or percent of students completing a program	<u>61</u> <u>X</u>	<u>X</u>	<u> </u>	<u>X</u>
Average time taken for completion of a program	<u>62</u> <u>X</u>	<u>X</u>	<u> </u>	<u>X</u>
Percent or number of students taking state board or licensure exams	<u>63</u> <u>X</u>	<u>X</u>	<u> </u>	<u>X</u>
Percent or number of students passing state board or licensure exams	<u>64</u> <u>X</u>	<u>X</u>	<u> </u>	<u>X</u>
Percent or number of students by type of license, certificate or registration received	<u>65</u> <u>X</u>	<u>X</u>	<u> </u>	<u>X</u>
Percent or number of students withdrawing from a program	<u>66</u> <u>X</u>	<u>X</u>	<u>X</u>	<u> </u>
<u>Other</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>Other</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>Other</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>Other</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

CONTINUE ON NEXT PAGE

THE FOLLOWING CHARACTERISTICS RELATE TO STUDENTS WHO HAVE TRANSFERRED OR ARE NATIVE TO FOUR-YEAR COLLEGES OR UNIVERSITIES.

STUDENT CLASSIFICATIONS

- NATIVE STUDENTS
- TRANSFERS WITH ASSOCIATE DEGREE
- TRANSFERS WITHOUT ASSOCIATE DEGREE

CONTINUE RATING EACH STUDENT-RELATED PROGRAM CHARACTERISTIC FOR DEGREE OF USEFULNESS IN MAKING PROGRAM QUALITY-EVALUATION DECISIONS FROM PERSPECTIVE CHECKED IN STEP 3.

<u>CHARACTERISTIC</u>		<u>STUDENT CLASSIFICATIONS</u>		
Percent or number of students by:		native students	transfer with assoc. degree	transfer without assoc. degree
enrollment in a four-year institution	<u>67</u>	___	___	___
type of college or university entered	<u>68</u>	___	___	___
name of university or college in which enrolled	<u>69</u>	___	___	___
number of hours transferred	<u>70</u>	___	___	___
upper division entering term GPA categories	<u>71</u>	___	___	___
upper division cumulative term GPA categories	<u>72</u>	___	___	___
upper division current term GPA categories	<u>73</u>	___	___	___
GPA per discipline area	<u>74</u>	___	___	___
GPA per type of course	<u>75</u>	___	___	___
academic major	<u>76</u>	___	___	___
number of times changed major	<u>77</u>	___	___	___
completing a four-year degree	<u>78</u>	___	___	___
time taken for completion of four-year degree	<u>79</u>	___	___	___
entering graduate school	<u>80</u>	___	___	___
average GPA	<u>81</u>	___	___	___
average course load	<u>82</u>	___	___	___

CONTINUE ON NEXT PAGE

(CONTINUE RATING EACH STUDENT-RELATED PROGRAM CHARACTERISTIC FOR DEGREE OF USEFULNESS IN MAKING QUALITY-EVALUATION DECISIONS ABOUT PROGRAMS FROM PERSPECTIVE CHECKED IN STEP 3.)

CHARACTERISTICS	STUDENT CLASSIFICATIONS		
	native students	transfer with assoc. degree	transfer without assoc. degree
Percent or number of students by:			
_____	Other _____	_____	_____
_____	Other _____	_____	_____
_____	Other _____	_____	_____
_____	Other _____	_____	_____

II. PROGRAM CHARACTERISTICS RELATING TO FACULTY/STAFF

FOR PART-TIME AND FULL-TIME CLASSIFICATIONS, RATE EACH FACULTY/STAFF RELATED CHARACTERISTIC FOR DEGREE OF USEFULNESS IN MAKING PROGRAM QUALITY-EVALUATION DECISIONS FROM PERSPECTIVE CHECKED IN STEP 3.

EXAMPLE

	part-time	full-time
degrees held	04 <u>2</u>	<u>1</u>

From the perspective checked in STEP 3:

The "2" in the "part-time" column indicates an opinion that information on degrees held by PART-TIME faculty/staff is "very useful" in making program quality-evaluation decisions. The "1" in the "full-time" column indicates an opinion that information on degrees held by FULL-TIME faculty/staff is "essential" in making program quality-evaluation decisions.

CHARACTERISTICS	FACULTY/STAFF CLASSIFICATIONS		CHARACTERISTICS	FACULTY/STAFF CLASSIFICATIONS	
Percent or number of Faculty/Staff by:	part-time	full-time	Percent or number of Faculty/Staff by:	part-time	full-time
years taught/service	01 _____	_____	number of course hours taught per term	07 _____	_____
length of service in a program	02 _____	_____	number of FTE per term	08 _____	_____
certification/rank	03 _____	_____	number of student contact hours per term	09 _____	_____
degrees held	04 _____	_____	number of students per term	10 _____	_____
level of compensation	05 _____	_____	average class size	11 _____	_____
productivity ratio	06 _____	_____			

CONTINUE ON NEXT PAGE

(CONTINUE RATING EACH FACULTY/STAFF-RELATED PROGRAM CHARACTERISTIC FOR DEGREE OF USEFULNESS IN MAKING QUALITY-EVALUATION DECISIONS ABOUT PROGRAMS FROM PERSPECTIVE CHECKED IN STEP 3.)

<u>CHARACTERISTICS</u>	<u>FACULTY/STAFF CLASSIFICATIONS</u>		<u>CHARACTERISTICS</u>	<u>FACULTY/STAFF CLASSIFICATIONS</u>	
Percent or number of Faculty/Staff by:	part-time	full-time	Percent or number of Faculty/Staff by:	part-time	full-time
sex categories	<u>12</u>	_____	level of participation in program decision-making	<u>21</u>	_____
age categories	<u>13</u>	_____	level of involvement in campus extracurricular activities	<u>22</u>	_____
race categories	<u>14</u>	_____	level of public service	<u>23</u>	_____
type of language spoken	<u>15</u>	_____	rate of faculty/staff turnover	<u>24</u>	_____
level of research activity	<u>16</u>	_____	_____ Other	_____	_____
level of publication activity	<u>17</u>	_____	_____ Other	_____	_____
level of participation in professional organizations	<u>18</u>	_____	_____ Other	_____	_____
level of use of alternative instructional methods	<u>19</u>	_____	_____ Other	_____	_____
level of participation in college governance	<u>20</u>	_____			
FOR THE FOLLOWING FACULTY/STAFF RELATED PROGRAM CHARACTERISTICS, THE FULL-TIME/PART-TIME CLASSIFICATIONS DO NOT APPLY. SIMPLY RATE EACH CHARACTERISTIC FOR DEGREE OF USEFULNESS IN MAKING QUALITY-EVALUATION DECISIONS.					
ratio of part-time to full-time faculty/staff	<u>25</u>	_____	ratio of faculty to student support staff	<u>27</u>	_____
ratio of faculty/staff to clerical staff	<u>26</u>	_____	ratio of faculty/staff to administrative personnel	<u>28</u>	_____
_____ Other	_____		_____ Other	_____	

CONTINUE ON NEXT PAGE

III. PROGRAM CHARACTERISTICS RELATING TO COSTS AND RESOURCES

FOR EACH CHARACTERISTIC, IN EACH OF THE THREE COLUMNS OF REPORTING CLASSIFICATIONS WRITE A NUMBER SELECTED FROM THE RATING CHOICES (LOOSE INSERT) TO INDICATE YOUR OPINION OF THAT CHARACTERISTIC'S USEFULNESS IN MAKING QUALITY-EVALUATION DECISIONS ABOUT PROGRAMS FROM THE PERSPECTIVE CHECKED IN STEP 3.

EXAMPLE

	per program FTE	per program unduplicated headcount	per total program
cost of materials	<u>03</u>	<u>1</u>	<u>1</u>

From the perspective checked in STEP 3:

The "2" in the "per program FTE" column indicates an opinion that information on cost of materials PER PROGRAM FTE is "very useful" in making program quality-evaluation decisions. In the next two columns, the "1" indicates an opinion that information on cost of materials PER PROGRAM UNDUPLICATED HEADCOUNT and PER TOTAL PROGRAM is "essential" in making program quality-evaluation decisions.

CHARACTERISTICS	REPORTING CLASSIFICATIONS		
	per program FTE	per program unduplicated headcount	per total program
total cost	<u>01</u>	—	—
cost of instructional personnel	<u>02</u>	—	—
cost of materials	<u>03</u>	—	—
cost of equipment maintenance	<u>04</u>	—	—
cost of space utilized	<u>05</u>	—	—
cost of support services	<u>06</u>	—	—
cost of program administration	<u>07</u>	—	—
cost of needs assessment or other necessary research	<u>08</u>	—	—
cost of program evaluation	<u>09</u>	—	—
cost of accreditation studies	<u>10</u>	—	—
space utilization	<u>11</u>	—	—
equipment utilization	<u>12</u>	—	—
number of library holdings	<u>13</u>	—	—
number of support staff	<u>14</u>	—	—

CONTINUE ON NEXT PAGE

(CONTINUE RATING EACH COSTS/RESOURCES-RELATED PROGRAM CHARACTERISTIC FOR DEGREE OF USEFULNESS IN MAKING PROGRAM QUALITY-EVALUATION DECISIONS FROM PERSPECTIVE CHECKED IN STEP 3.)

CHARACTERISTICS	REPORTING CLASSIFICATIONS		
	per program FTE	per program unduplicated headcount	per total program
_____ Other _____	_____	_____	_____
_____ Other _____	_____	_____	_____
_____ Other _____	_____	_____	_____
_____ Other _____	_____	_____	_____

IV. PROGRAM CHARACTERISTICS RELATING TO GENERAL INFORMATION

FOR EACH OF THE FIVE RATING SOURCE ALTERNATIVES, RATE EACH CHARACTERISTIC FOR DEGREE OF USEFULNESS IN MAKING PROGRAM QUALITY-EVALUATION DECISIONS.

EXAMPLE	currently enrolled students	program completers	program leavers	faculty/ staff	community (general)
a program curriculum	01 3	1	4	4	4

From the perspective checked in STEP 3:

The "3" in the "currently enrolled students" column indicates an opinion that RATINGS BY currently enrolled students of a program curriculum are of "some usefulness" in making program quality-evaluation decisions. The "1" in the next column indicates an opinion that RATINGS BY program completers of a program curriculum are "essential" in making program quality-evaluation decisions. In the next three columns, the "4" indicates an opinion that RATINGS BY program leavers, faculty/staff, and community (general) of a program curriculum are of "little or no usefulness" (or "not applicable") in making program quality-evaluation decisions.

CHARACTERISTICS	RATING SOURCE ALTERNATIVES				
	currently enrolled students	program completers	program leavers	faculty/ staff	community (general)
Ratings of:					
a program curriculum	01 _____	_____	_____	_____	_____
program facilities/equipment	02 _____	_____	_____	_____	_____
program instructional strategies	03 _____	_____	_____	_____	_____
program staff	04 _____	_____	_____	_____	_____
program administration	05 _____	_____	_____	_____	_____

CONTINUE ON NEXT PAGE

(CONTINUE RATING EACH GENERAL INFORMATION-RELATED CHARACTERISTIC FOR DEGREE OF USEFULNESS IN MAKING PROGRAM QUALITY-EVALUATION DECISIONS FROM PERSPECTIVE CHECKED IN STEP 3.)

CHARACTERISTICS	RATING SOURCE ALTERNATIVES				
	RATINGS BY:				
Ratings of:	currently enrolled students	program completers	program leavers	faculty/ staff	community (general)
support services	<u>06</u> _____	_____	_____	_____	_____
usefulness of student services	<u>07</u> _____	_____	_____	_____	_____
accessibility of student services	<u>08</u> _____	_____	_____	_____	_____
ease of use of student services	<u>09</u> _____	_____	_____	_____	_____
_____ Other	_____	_____	_____	_____	_____
_____ Other	_____	_____	_____	_____	_____
_____ Other	_____	_____	_____	_____	_____
_____ Other	_____	_____	_____	_____	_____

FOR THE FOLLOWING CHARACTERISTICS, SIMPLY RATE EACH CHARACTERISTIC FOR DEGREE OF USEFULNESS IN MAKING PROGRAM QUALITY-EVALUATION DECISIONS FROM PERSPECTIVE CHECKED IN STEP 3.

employer opinion of program completers	<u>10</u> _____	number/types of changes as a result of program evaluation	<u>20</u> _____
employer opinion of program non-completers	<u>11</u> _____	number/types of changes as a result of accreditation studies	<u>21</u> _____
job satisfaction ratings by completers	<u>12</u> _____	level of demand for program/service by students	<u>22</u> _____
job satisfaction ratings by non-completers	<u>13</u> _____	level of demand for program/service in service area	<u>23</u> _____
ratings by external consultants	<u>14</u> _____	level of demand for program/service in state	<u>24</u> _____
ratings by certification boards	<u>15</u> _____	level of demand for program/service in nation	<u>25</u> _____
ratings by accreditation agencies	<u>16</u> _____		
number of alternative educational methods offered	<u>17</u> _____		Other _____
program admission requirements	<u>18</u> _____		Other _____
clearly stated program objectives	<u>19</u> _____		Other _____

CONTINUE ON NEXT PAGE

STEP 4: Please provide the following information.

Years in present position: _____ Years at present college: _____

Years in community college education: _____

Years in education other than community college education: _____

Birthdate: _____ Sex: female male
(mo) (da) (yr)Highest degree held: bachelor master specialist doctorateSTEP 5: Please indicate your opinions of the following.OPINION CHOICES

- 1 = NONE ("None of my activities or time")
 2 = LITTLE ("Less than one-fourth but more than none of my activities or time")
 3 = SOME ("One-fourth or more but less than three-fourths of my activities or time")
 4 = CONSIDERABLE ("Three-fourths or more but less than all of my activities or time")
 5 = ALL (TOTAL) ("100% of my activities or time")

Using one of the OPINION CHOICES listed above, indicate your perception of:

- the degree to which your POSITION is associated with each program area:
 Advanced and Professional Community Instructional Services
 Developmental Occupational Student Support Services
- the amount of TIME you spend in program quality-evaluation activities: _____
- the extent of your INVOLVEMENT in program quality-evaluation decision-making at your institution: _____

Please indicate your perception of your LEVEL OF EXPERIENCE in program quality-evaluation decision-making by checking one of the following:

 NONE LITTLE SOME CONSIDERABLE

PLEASE ADD ANY COMMENTS REGARDING THE PROGRAM QUALITY-EVALUATION PROCESS AT YOUR COLLEGE OR ANY COMMENTS ABOUT THIS QUESTIONNAIRE (ATTACH ADDITIONAL PAGE IF REQUIRED).

STEP 6: Please return this questionnaire to the project coordinator at your college.
Thank you for the expenditure of your time and energy on this project.

APPENDIX D
POSITION CODES WITH FREQUENCIES USED IN THE CATEGORIZATION OF
RESPONDENTS BY PROGRAM AREA

<u>Position Code</u>	<u>Title</u>	<u>Frequency</u>
01	President	13
02	Executive Vice President	9
03	Provost/Center Director	24
04	Assistant to the President	4
05	Research and Planning	10
06	Development	8
07	Special Services	8
08	EA/EO Coordinator	8
09	Special Projects	7
10	Public	3
11	Management Information Systems	5
12	Other General Administration	3
13	Chief Academic Officer	30
14	Program Director-Communications	12
15	Program Director-Mathematics	13
16	Program Director-Sciences	8
17	Program Director-Humanities	10
18	Program Director-Fine Arts	2
19	Program Director-Business	20
20	Program Director-Social Sciences	10

APPENDIX D (continued)

<u>Position Code</u>	<u>Title</u>	<u>Frequency</u>
21	Program Director-Industrial	9
22	Program Director-Allied Health	23
23	Program Director-Law Enforcement	2
24	Program Director-Other Technical Education	14
25	Program Director-Other Occupational Education	15
26	Program Director-Other General Education	10
27	Director CETA/Cooperative Education	1
28	Instructional Resources	23
29	Director-Continuing Education/Community Instructional Services	21
30	Development Education	5
31	Other Academic Affairs	3
32	Chief Student Affairs Officer	36
33	Financial Aid	11
34	Counseling	10
35	Admissions	7
36	Veterans' Affairs	2
37	Registrar	11
38	Placement & Follow-up	2
39	Student Activities	3
40	Athletics	2
41	Other Student Affairs	4
42	Chief Business Affairs Officer	6
43	Budget	3

APPENDIX D (continued)

<u>Position Code</u>	<u>Title</u>	<u>Frequency</u>
44	Purchasing	1
45	Personnel	8
46	Accounting	3
47	Physical Plant	2
48	Auditor	3
49	Data Processing	3
50	Other Business Affairs	0

APPENDIX E

RANKS AND MEANS FOR ALL PROGRAM CHARACTERISTICS FOR ALL RESPONDENTS AND FOR RESPONDENTS BY PROGRAM AREA

Rank	Program Areas (N=262)										Program Characteristics									
	All		Advan. & Prof.		Occup.		Develop.		Comm. Instr. Serv.		Stu. Serv.		Total cost of program		Ratings of program curriculum by program completers		Employer opinion of program completers		Number or percent of students completing a program	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1	1.30	9	1.44	7	1.43	1.5	1.00	1	1.38	3	1.39	3	1.39	3	1.39	3	1.39	3	1.39	3
2	1.42	4	1.40	2	1.23	12.5	1.40	7	1.62	18	1.55	18	1.55	18	1.55	18	1.55	18	1.55	18
3	1.43	15	1.54	1	1.21	162.5	2.60	11	1.71	11	1.47	11	1.47	11	1.47	11	1.47	11	1.47	11
4	1.44	3	1.30	3	1.28	19	1.50	13	1.75	4	1.42	4	1.42	4	1.42	4	1.42	4	1.42	4
5	1.45	21	1.61	4	1.34	4.5	1.70	2	1.43	16	1.53	16	1.53	16	1.53	16	1.53	16	1.53	16
6	1.47	7	1.43	9	1.46	1.5	1.00	8.5	1.67	22.5	1.58	22.5	1.58	22.5	1.58	22.5	1.58	22.5	1.58	22.5
7	1.51	6	1.41	27	1.59	76.5	2.00	37	2.05	14	1.50	14	1.50	14	1.50	14	1.50	14	1.50	14
8	1.51	23.5	1.63	15	1.49	27	1.60	4.5	1.52	11	1.47	11	1.47	11	1.47	11	1.47	11	1.47	11
9	1.52	5	1.26	26	1.58	12.5	1.40	64	2.26	15	1.51	15	1.51	15	1.51	15	1.51	15	1.51	15
10	1.53	5	1.41	5	1.38	76.5	2.00	3	1.45	17	1.54	17	1.54	17	1.54	17	1.54	17	1.54	17
11	1.53	10	1.49	13	1.43	294	3.25	16	1.82	7	1.44	7	1.44	7	1.44	7	1.44	7	1.44	7
12	1.54	55.5	1.79	8	1.43	294	3.25	23	1.95	9	1.45	9	1.45	9	1.45	9	1.45	9	1.45	9
13	1.54	19	1.60	6	1.41	4.5	1.70	11	1.71	22.5	1.58	22.5	1.58	22.5	1.58	22.5	1.58	22.5	1.58	22.5
14	1.54	18	1.59	13.5	1.48	12.5	1.40	4.5	1.62	18	1.55	18	1.55	18	1.55	18	1.55	18	1.55	18
15	1.58	13	1.52	33	1.63	76.5	2.00	45.5	2.10	33	1.71	33	1.71	33	1.71	33	1.71	33	1.71	33
16	1.62	30	1.67	43	1.69	47	1.80	42	2.10	1	1.53	1	1.53	1	1.53	1	1.53	1	1.53	1
17	1.62	12	1.50	42	1.68	76.5	2.00	29.5	2.00	19	1.56	19	1.56	19	1.56	19	1.56	19	1.56	19
18	1.67	31.5	1.68	10	1.47	27	1.60	8.5	1.67	87	1.03	87	1.03	87	1.03	87	1.03	87	1.03	87
19	1.67	63	1.81	11.5	1.48	47	1.80	18.5	1.86	50	1.79	50	1.79	50	1.79	50	1.79	50	1.79	50
20	1.68	37.5	1.70	63	1.79	47	1.80	42	2.10	2	1.36	2	1.36	2	1.36	2	1.36	2	1.36	2
21	1.68	22	1.62	18	1.51	276.5	3.00	14.5	1.81	29	1.69	29	1.69	29	1.69	29	1.69	29	1.69	29
22	1.68	23.5	1.63	15	1.49	47	1.80	64	2.26	34.5	1.71	34.5	1.71	34.5	1.71	34.5	1.71	34.5	1.71	34.5
23	1.68	29	1.66	22	1.53	12.5	1.40	6	1.57	103.5	1.95	103.5	1.95	103.5	1.95	103.5	1.95	103.5	1.95	103.5
24	1.69	13	1.51	20.5	1.52	47	1.00	64	2.26	25	1.62	25	1.62	25	1.62	25	1.62	25	1.62	25
25	1.69	33.5	1.69	58.5	1.76	47	1.80	80	2.35	5.5	1.43	5.5	1.43	5.5	1.43	5.5	1.43	5.5	1.43	5.5
26	1.69	26	1.65	18	1.51	27	1.60	39	2.05	30	1.74	30	1.74	30	1.74	30	1.74	30	1.74	30
27	1.69	20	1.60	23	1.54	4.5	1.70	56.5	2.21	31	1.70	31	1.70	31	1.70	31	1.70	31	1.70	31
28	1.69	64.5	1.81	39	1.67	12.5	1.40	18.5	1.86	24	1.60	24	1.60	24	1.60	24	1.60	24	1.60	24

Program Characteristics

Program Areas

All	Advan. & Prof.		Occup.		Develop.		Comm. Instr. Serv.		Stu. Serv.		Program Characteristics	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
29	1.71	60	1.03	53.5	1.74	12.5	1.40	25.5	1.95	26	1.63	Cost of support services per total program
30	1.72	25	1.65	25	1.57	76.5	2.00	145	2.63	27	1.67	Number or percent of fulltime faculty/staff by number of course hours per term
31	1.73	16	1.57	60.5	1.78	105.5	2.20	33.5	2.05	37.5	1.73	Cost of instructional personnel per program unduplicated headcount
32	1.73	11	1.49	30	1.62	27	1.60	117	2.53	32	1.70	Number or percent of fulltime faculty/staff by length of service in program
33	1.73	17	1.58	64.5	1.80	76.5	2.00	25.5	1.95	45.5	1.78	Number or percent of parttime faculty/staff by degrees held
34	1.74	40	1.71	35	1.64	27	1.66	81.5	2.14	36	1.72	Number or percent of program completers
35	1.75	62	1.80	38	1.65	294	3.25	71	2.30	44	1.76	Number or percent of program completers by type of license, certificate or registration received
36	1.75	129	2.03	60.5	1.78	47	1.80	67.5	2.29	5.5	1.43	Number of support staff per total program
37	1.75	58	1.79	49.5	1.73	27	1.60	33.5	2.05	48.5	1.79	Number of support staff per total program
38	1.76	31	1.68	24	1.55	27	1.60	18.5	1.96	91.5	1.93	Number of support staff per total program
39	1.76	91.5	1.91	69	1.82	47	1.80	93.5	2.40	13	1.48	Number of support staff per total program
40	1.76	82.5	1.88	28	1.61	294	3.25	37	2.05	55.5	1.82	Number of support staff per total program
41	1.76	27.5	1.66	56.5	1.75	12.5	2.00	37	2.05	77.5	1.91	Number of support staff per total program
42	1.78	99	1.94	18	1.51	32.5	1.40	21.5	1.50	99.5	1.94	Number of support staff per total program
43	1.78	2	1.38	40	1.67	47	1.80	222	2.95	58	1.82	Number of support staff per total program
44	1.78	45	1.76	44	1.70	4.5	1.20	48.5	2.14	48.5	1.79	Number of support staff per total program
45	1.78	77	1.86	32	1.63	162.5	2.60	71	2.30	83	1.92	Number of support staff per total program
46	1.79	75.5	1.85	37	1.65	76.5	2.00	56.5	2.21	43	1.77	Number of support staff per total program
47	1.79	33.5	1.69	41	1.68	76.5	2.00	95	2.42	28	1.67	Number of support staff per total program
48	1.79	39	1.70	53.5	1.74	76.5	2.00	42	2.10	41.5	1.77	Number of support staff per total program
49	1.80	58	1.79	35	1.64	27	1.80	18.5	1.96	77.5	1.81	Number of support staff per total program
50	1.80	129	2.03	62	1.88	47	1.80	75.5	2.33	11	1.47	Number of support staff per total program
51	1.81	42	1.73	45	1.71	76.5	2.00	126.5	2.57	63.5	1.86	Number of support staff per total program
52	1.81	109	1.97	15	1.49	27	1.60	14.5	1.81	144	2.08	Number of support staff per total program
53	1.82	43	1.73	53.5	1.74	105.5	2.20	25.5	1.95	105.5	1.95	Number of support staff per total program
54	1.83	86	1.89	47	1.71	268	3.20	29.5	2.00	105.5	1.95	Number of support staff per total program
55	1.84	44	1.75	71	1.83	194.5	2.80	87.5	2.38	47	1.78	Number of support staff per total program
56	1.84	48	1.79	35	1.64	76.5	2.00	42	2.09	87	1.93	Number of support staff per total program
57	1.84	106	1.95	20.5	1.52	268	3.20	75.5	2.33	71	1.87	Number of support staff per total program
58	1.85	8	1.43	97	1.93	27	1.60	117	2.53	34.5	1.71	Number of support staff per total program

Program Characteristics

Program Areas

All	Advan. & Prof.				Occup.				Comm. Instr. Serv.				Stu. Serv.				
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	
59	1.85	75.5	1.85	58.5	1.76	47	1.80	33.5	2.05	87	1.93						Ratings of program facilities/equipment by currently enrolled students
60	1.85	129	2.03	74	1.85	27	1.60	113	2.52	20.5	1.58						Ratings of support services by program completers
61	1.86	142	2.08	82	1.88	12	1.40	87.5	2.38	20.5	1.58						Ratings of support services by currently enrolled students
62	1.87	81	1.87	56.5	1.75	47	1.80	87.5	2.38	67.5	1.88						Level of demand for program/service in state
63	1.88	51	1.78	99.5	1.95	76.5	2.00	71.5	2.30	57.5	1.88						Cost of program administration per program FTE
64	1.88	80	1.87	67	1.81	12.5	1.40	33.5	2.05	73	1.89						Weak or types changes as a result of program evaluation
65	1.89	61	1.80	49.5	1.73	12.5	1.40	21.5	1.90	164.5	2.15						Ratings of program staff by faculty/staff/enrolled students
66	1.89	109	1.97	67	1.81	27	1.60	59.5	2.24	81.5	1.92						Number or percent of fulltime faculty/staff by level of use of alternative instructional methods
67	1.90	51	1.78	47	1.71	130.5	2.40	161	2.74	109	1.95						Number or percent of fulltime faculty/staff by level of participation in program decision-making
68.5	1.90	53.5	1.78	29	1.61	76.5	2.00	117	2.53	69	1.87						Cost of support services per program FTE
68.5	1.90	73	1.84	117	2.02	105.5	2.20	51	2.15	70	1.87						Number or percent of parttime faculty/staff by number of student contact hours per term
70	1.90	91.5	1.91	47	1.71	12.5	1.40	48.5	2.14	111.5	1.97						Number or percent of parttime faculty/staff by productivity ratio
71	1.90	115	1.98	61	1.74	105.5	2.20	29.5	2.00	95.5	1.94						Cost of space utilized per total program
72	1.90	100	1.94	92	1.93	27	1.60	59.5	2.24	45.5	1.84						Space utilization per total program
73	1.90	64.5	1.81	77	1.87	130.5	2.40	87.5	2.38	98	1.94						Number or percent of entering students by types of developmental or remedial assistance desired
74	1.91	46	1.77	113	2.00	76.5	2.00	126.5	2.57	76	1.90						Cost of support services per program unduplicated headcount
75	1.92	90	1.91	119.5	2.02	105.5	2.20	67.5	2.29	37.5	1.73						Number or percent of entering students by type of handicap
76	1.92	113	1.97	64.5	1.80	47	1.80	67.5	2.29	53.5	1.81						Number or percent of entering students by academic skills level as measured by local instruments
77	1.92	41	1.72	111	1.99	47	1.80	165	2.76	93	1.93						Number or percent of entering students by major area of study
78	1.93	71	1.83	31	1.62	358	3.60	139	2.62	71	1.83						Cost of program administration per program unduplicated headcount
79	1.94	97.5	1.93	92	1.93	76.5	2.00	113	2.52	41.5	1.77						Number or percent of fulltime faculty/staff by number of FTE per term
80	1.95	49	1.78	86	1.89	47	1.80	199.5	2.89	80	1.92						Ratings of program instructional strategies by currently enrolled students
81	1.95	115	1.98	70	1.82	47	1.80	53.5	2.19	147.5	2.09						Number or percent of currently enrolled students by major area of study
82	1.95	53.5	1.78	53.5	1.74	358	3.60	148.5	2.67	57	1.82						Number or percent of program completers by average time taken for completion of a program
83	1.96	36	1.70	79	1.87	145	2.50	93.5	2.40	127	2.01						Number/types of changes as a result of accreditation studies
84	1.97	109	1.97	75.5	1.85	45	1.80	146	2.65	99.5	1.94						Number or percent of parttime faculty/staff by years taught/service
85	1.97	66.5	1.81	88	1.90	76.5	2.00	11	1.71	111.5	1.97						

Program Characteristics

Program Areas

All	Advan. & Prof.			Occup.			Develop.			Comm. Instr. Serv.			Stu. Serv.		
	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
86	1.98	88	1.80	111	1.99	105.5	2.20	157	2.71	119.5	2.00	Number or percent of currently enrolled students by types of devol-			
87	1.98	120.5	2.00	62	1.78	162.5	2.60	99.5	2.43	119.5	2.00	opmental or remedial assistance desired			
88	1.99	55.5	1.79	106.5	1.99	226.5	3.00	216.5	2.95	75	1.89	Number or percent of parttime faculty/staff by number of course			
89	1.99	51	1.78	102.5	1.96	76.5	2.00	132.5	2.60	130	2.02	hours taught per term			
90	1.99	60	1.80	80	1.88	76.5	2.00	29.5	2.00	132	2.03	Number or percent of currently enrolled students by average GPA			
91	1.99	103	1.95	106.5	1.99	226.5	3.00	110	2.50	107	1.96	of students in program			
92	2.00	126.5	2.03	86	1.89	318	3.40	175.5	2.81	65.5	1.86	Cost of equipment maintenance per program FTE			
93	2.00	120.5	2.00	84	1.88	268	3.20	315.5	3.16	65.5	1.86	Number or percent of parttime faculty/staff by length of service in			
94	2.00	135	2.05	90	1.92	47	1.80	25.5	1.95	138	2.05	a program			
95	2.01	95.5	1.92	137.5	2.11	76.5	2.00	120	2.56	124	2.01	Number or percent of currently enrolled students by percent of			
96	2.01	72	1.84	98	1.95	105.5	2.20	157	2.71	114.5	1.99	total college FTE in program			
97	2.02	94	1.92	101	1.96	194.5	2.60	260.5	3.05	140	2.06	Number or percent of currently enrolled students by number of			
98	2.02	140.5	2.08	75.5	1.86	47	1.80	87.5	2.38	91.5	1.03	hours with failing grade			
99	2.03	136	2.05	133	2.07	105.5	2.20	126.5	2.56	63.5	1.86	GPA categories for program-related coursework			
100	2.03	143.5	2.08	86	1.89	27	1.60	126.5	2.56	131	2.03	Number or percent of currently enrolled students by cumulative			
101	2.03	37.5	1.70	104.5	1.98	76.5	2.00	184	2.85	164.5	2.15	GA categories of a program curriculum by currently enrolled students			
102	2.03	106	1.95	111	1.99	162.5	2.60	165	2.76	116	1.99	Number of support staff per program FTE			
103	2.03	27.5	1.66	129	2.07	76.5	2.00	62	2.25	119.5	2.00	Equipment utilization per program unduplicated headcount			
104	2.04	132	2.04	145	2.13	145	2.50	80	2.35	56.5	1.82	Number of library holdings per total program			
105	2.04	161	2.14	123	2.05	105.5	2.20	45.5	2.10	101	1.94	Number or percent of currently enrolled students by type of handli-			
106	2.05	131	2.03	67	1.81	130.5	2.40	99.5	2.43	186	2.21	cap			
107	2.05	95.5	1.92	92	1.93	76.5	2.00	82	2.37	102	1.95	Number of support staff per program unduplicated headcount			
108	2.05	35	1.69	137.5	2.11	130.5	2.40	209	2.91	144	2.08	Equipment utilization per program FTE			
109	2.06	147.5	2.11	124	2.06	226.5	3.00	281.5	3.10	40	1.75	Number or percent of entering students by level of previous academ-			
												ic achievement			
												Number or percent of parttime faculty/staff by certification/rank			
												Number or percent of currently enrolled students by percent of			
												total college unduplicated headcount in program			
												Number or percent of currently enrolled students by faculty/staff			
												Number or percent of parttime faculty/staff by level of use of			
												alternative instructional methods			
												Number or percent of fulltime faculty/staff by level of compensation			
												Number or percent of currently enrolled students by academic skills			
												level as measured by local instruments			
												Number or percent of currently enrolled students by cumulative			
												GPA categories			

Program Characteristics

Program Areas

All	Advan. & Prof.			Occup.			Overlop.			Comm. Instr. Serv.			Sta. Serv.		
Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean
110	2.06	154.5	2.13	117	2.02	105.5	2.20	105.5	2.20	53.5	2.19	119.5	2.00		Ratings of accessibility of student services by faculty/staff
111	2.07	74	1.85	95.5	1.94	268	3.20	175.5	2.81	136.5	2.05				Number or percent of program completers by major area of study
112	2.07	97.5	1.93	119.5	2.02	76.5	2.00	157	2.71	114.5	1.99				Cost of equipment maintenance per program unduplicated headcount
113	2.07	134	2.25	166.5	2.20	162.5	2.60	87.5	2.38	53.5	1.81				Ratings of accessibility of student services by program leavers
114	2.07	47.5	1.77	147.5	2.13	162.5	2.60	222	2.95	170	2.16				Number or percent of entering students by academic skills level as measured by state instruments
115	2.07	93	1.91	142.5	2.12	226.5	3.00	209	2.90	128	2.02				Number or percent of currently enrolled students by number of hours of developmental/remedial work
116	2.08	147.5	2.11	99.5	1.95	105.5	2.20	42	2.10	175	2.18				Number or percent of program completers by employment status
117	2.08	68.5	1.81	137.5	2.12	136.5	2.20	132.5	2.60	164.5	2.15				Space utilization per program FTE
118	2.08	78	1.87	141.5	2.12	139.5	2.40	126.5	2.57	192.5	2.00				Space utilization per program unduplicated headcount
119	2.08	78	1.86	140.5	1.95	162.5	2.60	173.5	2.81	96.5	1.94				Ratio of faculty to student support staff
120	2.09	143.5	2.08	212	2.38	194.5	2.60	303.5	3.14	95	1.94				Number or percent of students transferring with associate degree
121	2.09	88	1.89	157.5	2.18	162.5	2.60	260.5	3.05	141	2.07				Number or percent of one-year degree completers by academic skills level
122	2.09	123	2.02	162	2.19	130.5	2.40	105	2.45	82	1.93				Number or percent of continuing students by academic skills level as measured by national instruments
123	2.10	125	2.02	125.5	2.06	12.5	1.40	59.5	2.24	129	2.02				Cost of space utilized per program FTE
124	2.10	162	1.94	94	1.93	226.5	3.00	238.5	3.00	74	1.89				Cost of needs assessment or other necessary research per total program
125	2.11	162.5	2.14	62	1.88	47	1.80	99.5	2.43	150.5	2.10				Number or percent of entering students by degree level sought
126	2.11	213	2.30	102.5	1.96	130.5	2.40	80	2.35	60	1.83				Cost of program evaluation per total program
127	2.11	194	2.25	203	2.34	130.5	2.40	87.5	2.38	51	1.80				Number or percent of entering students by level of awareness of college's programs, services, etc.
128	2.12	111	1.97	147.5	2.13	226.5	3.00	294	3.11	147.5	2.09				Ratings of ease of use of student services by program leavers
129	2.11	126.5	2.03	89	1.91	105.5	2.20	192	2.86	110	1.96				Number or percent of program completers by cumulative GPA categories for program related course work
130	2.12	182	2.22	140	2.11	105.5	2.20	53.5	2.19	119.5	2.00				Ratio of faculty/staff to administrative personnel
131	2.12	117	1.98	114.5	2.01	76.5	2.00	201.5	2.90	177.5	2.19				Ratings of ease of use of student services by faculty/staff
132	2.12	115	1.98	216	2.40	268	3.20	345.5	3.24	108	1.96				Number or percent of parttime faculty/staff by number of FTE per term
133	2.13	118.5	1.98	147.5	2.13	318	3.40	175.5	2.81	144	2.08				Number or percent of students transferring with associate degree by enrollment in a four-year institution
134	2.14	82.5	1.88	141	2.12	226.5	3.00	271.5	3.05	159	2.13				Number or percent of program leavers by number of hours with failing grade
135	2.14	177	2.21	121	2.03	130.5	2.40	59.5	2.24	167	2.15				Number or percent of currently enrolled students by average course load for students in program
															Number or percent of parttime faculty/staff by rate of faculty/staff turnover

Program Characteristics

Program Area

All	Adm. & Prof.			Occup.			Develop.			Comm. Serv.			Stu. Serv.		
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean
136.5	2.15	186	2.23	95.5	1.94	130.5	2.40	126.5	2.57	87	1.93	Number or percent of currently enrolled students by career decision status			
136.5	2.15	186	2.23	129	2.07	226.5	3.00	303.5	3.14	81.5	1.92	Number or percent of currently enrolled students by self-concept categories			
138	2.15	147.5	2.11	133	2.07	76.5	2.00	99.5	2.43	156	2.12	Number or percent of program completers by career decision status			
139	2.15	151	2.11	164	2.20	130.5	2.40	126.5	2.57	87	1.93	Cost of space utilized per program unduplicated headcount			
140	2.15	110.5	1.96	104.5	1.98	226.5	3.00	238.5	3.00	113	1.97	Number or percent of currently enrolled students by degree level sought			
141.5	2.15	209.5	2.29	72	1.84	130.5	2.40	87.5	2.38	103.5	1.95	Number or percent of entering students by career decision status			
141.5	2.15	207	2.28	194	2.31	194.5	2.80	120	2.55	62	1.84	Ratings of usefulness of student services by program leavers			
143	2.16	84.5	1.88	73	1.84	76.5	2.00	184	2.85	153	2.11	Ratio of faculty/staff to clerical staff			
144	2.16	197.5	2.26	239	2.48	162.5	2.60	139	2.62	30	1.70	Number or percent of currently enrolled students by need for various student services			
145	2.16	164	2.15	282	2.63	268	3.20	260.5	3.06	72	1.88	Number or percent of students transferring with associate degree			
146	2.16	150	2.11	259	2.55	318	3.40	281.5	3.10	125	2.01	By average GPA			
147	2.17	147.5	2.11	182.5	2.27	194.5	2.80	260.5	3.05	136.5	2.06	Number or percent of students transferring with associate degree			
148	2.17	157.5	2.13	205	2.36	394.5	3.80	230.5	3.00	134.5	2.04	Upper division cumulative term GPA categories			
149	2.17	196	2.25	173	2.23	268	3.20	53.5	2.19	183	2.34	Number or percent of program completers by cumulative GPA categories			
150	2.17	228	2.34	122	2.04	130.5	2.40	105	2.45	87	1.93	Number or percent of students transferring with associate degree by academic major			
151	2.17	170	2.17	129	2.07	27	1.60	75.5	2.33	187	2.22	Employer opinion of program non-completers			
152	2.18	139	2.07	152	2.16	268	3.20	281.5	3.10	164.5	2.15	Number or percent of currently enrolled students by level of awareness of college's programs, services, etc.			
153	2.18	137.5	2.06	142.5	2.12	226.5	3.00	192	2.86	179	2.19	Ratings of program administration by currently enrolled students			
154	2.19	145	2.09	108.5	1.99	106.5	2.20	48.5	2.14	177.5	2.19	Number of library holdings per program unduplicated headcount			
155	2.20	167.5	2.17	147.5	2.13	268	3.20	222	2.95	154.5	2.11	Number or percent of entering students by number of hours of developmental/freelance work			
156	2.20	68	1.82	182.5	2.27	268	3.20	281.5	3.10	189	2.22	Number or percent of parttime faculty/staff by level of compensation			
157	2.20	104	1.96	162	2.19	194.5	2.80	333.5	3.20	209	2.29	Number or percent of currently enrolled students by hours completed			
158	2.20	183	2.23	247.5	2.51	358	3.60	260.5	3.05	146	2.09	Number or percent of currently enrolled students by academic skills level as measured by state instruments			
159	2.20	214	2.31	247.5	2.51	194.5	2.80	303.5	3.14	126	2.01	Number of library holdings per program FTE			
												Number or percent of students transferring with associate degree by GPA per discipline area			
												Number or percent of students transferring without associate degree by completing a four-year degree			

Program Characteristics

Program Areas

All	Adm. & Prof.			Occup.			Develop.			Comm. Instr. Serv.			Stu. Serv.				
	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean			
160	2.21	184	2.23	256	2.54	194.5	2.80	303.5	3.14	133	2.04	Number or percent of native students by completing a four-year de- gree					
161	2.21	159.5	2.14	157.5	2.18	268	3.20	209	2.90	184	2.21	Number or percent of currently enrolled students by number of hours enrolled					
162	2.22	179.5	2.22	154	2.17	268	3.20	175.5	2.81	183	2.20	Number or percent of entering students by number of hours enrolled					
163	2.23	80	1.89	182.5	2.27	162.5	2.60	345.5	3.24	170	2.16	Number or percent of currently enrolled students by academic skill level as measured by national instruments					
164	2.23	177	2.21	280	2.61	318	3.40	281.5	3.10	134.5	2.14	Number or percent of students transferring with associate degree by upper division entering term GPA categories					
165	2.23	199.5	2.26	309	2.75	318	3.40	260.5	3.05	79	1.91	Number or percent of native students by average GPA					
166	2.24	216	2.31	264.5	2.56	194.5	2.80	113	2.52	67.5	1.86	Number or percent of entering students by need for various stu- dent services					
167	2.24	137.5	2.06	218.5	2.40	194.5	2.80	192	2.86	196.5	2.25	Number or percent of program completers by number of hours with failing grade					
168	2.24	167.5	2.17	129	2.07	268	3.20	303.5	3.14	170	2.16	Number or percent of currently enrolled students by number of hours repeated					
169	2.25	70	1.83	170.5	2.22	130.5	2.40	325	3.19	260.5	2.47	Number or percent of program completers by performance on stan- dardized national tests					
170	2.25	224	2.35	137.5	2.11	47	1.80	126.5	2.57	160	2.14	Level of demand for program/service in nation					
171	2.25	248.5	2.45	105	2.27	162.5	2.60	139	2.62	123	2.01	Ratings of support services by program leavers					
172	2.26	47.5	1.77	186.5	2.28	268	3.20	209	2.90	278.5	2.52	Number or percent of program completers by performance on stan- dardized state tests					
173	2.26	209.5	2.29	157.5	2.18	318	3.40	281.5	3.10	139	2.06	Number or percent of currently enrolled students by number of hours incomplete					
174	2.26	157.5	2.13	272	2.59	268	3.20	346.5	3.24	152	2.11	Number or percent of students transferring without associate de- gree by enrollment in a four-year institution					
175	2.27	197.5	2.26	283	2.64	318	3.40	260.5	3.05	168	2.16	Number or percent of students transferring without associate de- gree by upper division cumulative term GPA categories					
176	2.27	234	2.39	308	2.74	268	3.20	260.5	3.05	94	1.94	Number or percent of students transferring without associate de- gree by academic major					
177	2.28	261.5	2.50	135	2.08	130.5	2.40	108	2.48	213	2.30	Ratings of a program curriculum by program leavers					
178	2.28	159.5	2.14	210.5	2.38	318	3.40	222	2.95	145.5	2.11	Number or percent of currently enrolled students by number of hours withdrawn					
179	2.28	175	2.20	279	2.61	358	2.60	303.5	3.14	176	2.19	Number or percent of native students by upper division cumulative term GPA categories					
180.5	2.28	186	2.23	154	2.17	27	1.60	175.5	2.81	232	2.37	Number or percent of program completers by type of handicap					
180.5	2.28	174	2.19	129	2.07	268	3.20	175.5	2.81	245.5	2.42	Ratings by external consultants					
182	2.28	134	2.05	191	2.30	226.5	3.00	303.5	3.14	215	2.31	Number or percent of entering students by performance on standard- ized national tests					

Program Characteristics

Program Areas

All	Advan. & Prof.			Occup.			Develop.			Comm. Instr. Serv.			Stu. Serv.				
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank			
103	2.29	203	2.28	197	5	2.33	194	5	2.80	281	5	3.10	205	5	2.29	Number or percent of program completers by term GPA categories	
104	2.29	244	2.44	177	5	2.24	162	5	2.60	87	5	2.38	186	5	2.25	Number of program staff by program leavers	
105	2.29	217	5	2.32	234	2.45	394	5	3.80	281	5	3.10	180	2	2.19	Number or percent of students transferring without associate degree by academic major	
106	2.30	203	5	2.28	191	2.30	105	5	2.20	87	5	2.38	199	5	2.26	Number or percent of program completers by time spent in program	
107	2.30	152	5	2.12	162	2.19	226	5	3.00	209	2	2.50	191	2	2.23	Number or percent of program completers by degree level sought	
108	2.30	84	5	1.88	225	2.42	76	5	2.00	222	2	2.95	230	2	2.36	Number or percent of program completers by academic skills level as measured by local instruments	
109	2.30	112	1.97	197	5	2.33	268	3	2.20	209	2	2.90	240	2	2.41	Number or percent of entering students by performance on standardized state tests	
190	2.30	212	2.30	249	2.51	394	5	3.80	260	5	3.05	182	2	2.20	Number or percent of native students by academic major		
191	2.31	244	2.44	278	2.60	358	3	3.60	238	5	3.00	185	2	2.21	Number or percent of students transferring without associate degree by GPA per discipline area		
192	2.31	219	5	2.33	266	2.56	358	3	3.60	303	5	3.14	192	2	2.24	Number or percent of native students by GPA per discipline area	
193	2.32	222	5	2.34	292	2.67	318	3	3.40	281	5	3.10	172	5	2.17	Number or percent of students transferring with associate degree by upper division current term GPA categories	
194	2.32	215	2.31	179	2.25	268	3	2.20	238	5	3.00	247	2	2.42	Number or percent of program completers by number of hours completed		
195	2.31	194	2.25	188	5	2.29	318	3	3.40	148	5	2.67	199	5	2.26	Number or percent of program leavers by number of hours withdrawn	
196	2.32	189	2.24	186	5	2.28	358	3	3.60	336	3	3.21	205	5	2.29	Number or percent of program leavers by cumulative GPA categories for program-related course work	
197	2.32	201	2.27	205	5	2.65	268	3	2.20	345	5	3.24	161	2	2.14	Number or percent of students transferring with associate degree by number of hours transferred	
198	2.32	162	5	2.14	203	5	2.34	106	5	2.20	182	2	2.70	189	2	2.22	Cost of needs assessment or other necessary research by program FTE
199	2.32	230	2.37	307	2.74	318	3	3.40	260	5	3.05	172	5	2.17	Number or percent of students transferring without associate degree by upper division entering GPA categories		
200	2.33	189	2.24	175	2.24	130	5	2.40	271	5	3.05	213	2	2.30	Cost of program evaluation per program FTE		
201	2.33	261	2.46	172	2.23	106	5	2.20	113	2	2.52	221	5	2.33	Number of alternative educational methods offered		
202	2.33	124	2.02	197	5	2.33	358	3	3.60	363	5	3.29	236	5	2.39	Number or percent of currently enrolled students by performance on standardized national tests	
203	2.34	232	5	2.38	225	2.42	318	3	3.40	325	3	3.19	157	2	2.13	Number or percent of program leavers by cumulative GPA categories	
204	2.34	209	5	2.29	188	5	2.29	162	5	2.60	126	5	2.67	221	5	2.33	Number or percent of entering students by amount of time since last formal educational experience
205	2.34	165	5	2.15	221	6	2.41	268	3	2.20	222	2	2.95	262	5	2.44	Number or percent of program leavers by number of hours of developmental/remedial work
206	2.34	177	5	2.32	294	2.68	268	3	2.20	345	5	3.24	158	2	2.13	Number or percent of students transferring without associate degree by number of hours transferred	

Program Characteristics

Program Areas

All	Advan. & Prof.				Occup.				Comm. Instr. Serv.				Sta. Serv.			
	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean
207	2.34	192	2.25	150	2.14	194.5	2.80	192	2.86	223.5	2.33	Number or percent of currently enrolled students by level of previous academic achievement				
208	2.34	265	2.52	290	2.66	194.5	2.80	175.5	2.81	59	1.83	Number or percent of currently enrolled students by use of various student services				
209	2.35	181	2.22	200	2.33	130.5	2.40	165	2.76	181	2.20	Cost of needs assessment or other necessary research per program unduplicated headcount				
210	2.35	219.5	2.33	169	2.21	130.5	2.40	209	2.90	208	2.29	Cost of program evaluation				
211	2.35	209.5	2.29	166.5	2.20	162.5	2.60	139	2.62	263.5	2.48	Number or percent of program leavers by type of handicap				
212	2.35	179.5	2.22	125.5	2.06	394.5	3.80	260.5	3.05	218.5	2.32	Number or percent of program leavers by major area of study				
213	2.35	101	1.94	218.5	2.40	394.5	3.80	260.5	3.05	268	2.49	Number or percent of currently enrolled students by performance on standardized state tests				
214	2.36	106	1.95	237.5	2.47	194.5	2.80	238.5	3.00	250	2.43	Number or percent of program completers by academic skills level as measured by state instruments				
215	2.36	237	2.40	117	2.02	318	3.40	175.5	2.81	283	2.53	Number or percent of entering students by number of years of related work				
216	2.36	287.5	2.61	160	2.38	236.5	3.00	98.5	2.43	248.5	2.43	Number or percent of program leavers by program leavers				
217	2.36	305	2.68	114.5	2.01	424	4.00	175.5	2.81	213	2.30	Number or percent of program leavers holding jobs in which trained				
218	2.36	206	2.28	305	2.73	318	3.40	303.5	3.14	198	2.25	Number or percent of native students by upper division entering GPA categories				
219	2.37	122	2.02	228	2.43	105.5	2.20	325	3.19	239	2.40	Number or percent of program completers by academic skills level as measured by national instruments				
220	2.37	226	2.35	204	2.35	194.5	2.80	139	2.62	218.5	2.32	Number or percent of program leavers by time spent in program				
221	2.37	189	2.24	228	2.43	424	4.00	99.5	2.43	251	2.43	Job satisfaction ratings by non-completers				
222	2.38	260	2.49	166.5	2.20	318	3.40	303.5	3.14	203.5	2.28	Number or percent of entering students by part time/full time classification				
223	2.38	254.5	2.48	180	2.26	268	3.20	157	2.71	189	2.22	Number or percent of program leavers by career decision status				
224	2.38	191	2.24	285.5	2.65	358	3.60	385	3.38	194	2.24	Number or percent of students transferring with associate degree by type of college or university entered				
225	2.38	165.5	2.15	274.5	2.59	162.5	2.60	260.5	3.05	273.5	2.51	Number or percent of program completers by number of hours of developmental/renewal work				
226	2.39	257	2.48	314	2.77	318	3.40	260.5	3.05	195	2.25	Number or percent of students transferring without associate degree by upper division current term GPA categories				
227	2.39	133	2.05	218.5	2.40	162.5	2.60	325	3.19	260.5	2.47	Number or percent of program leavers by academic skills level as measured by local instruments				
228	2.40	226	2.35	175	2.24	318	3.40	192	2.86	259	2.47	Number or percent of program leavers by number of hours completed				
229	2.40	221	2.33	151	2.15	130.5	2.40	199.5	2.89	220	2.33	Number or percent of fulltime faculty/staff by level of participation in professional organizations				
230	2.40	259	2.48	182.5	2.27	318	3.40	192	2.86	203.5	2.28	Number or percent of entering students by number of hours with failing grade				

Program Characteristics

Program Areas

All	Advan. & Prof.			Occup.			Develop.			Comm. Instr. Serv.			Stu. Serv.			
	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	
231	2.40	203.5	2.28	177.5	2.24	226.5	3.00	148.5	2.67	310	2.63	Number or percent of program completers by number of jobs held since leaving program				
232	2.40	231	2.38	302	2.72	358	3.60	303.5	3.14	216	2.32	Number or percent of native students by upper division current term GPA categories				
233	2.40	254.5	2.48	175	2.24	318	3.40	281.5	3.10	211	2.30	Number or percent of currently enrolled students by parttime/fulltime classification				
234	2.41	241.5	2.43	208	2.37	318	3.40	269	2.90	248.5	2.43	Number or percent of program leavers by number of hours incomplete				
235	2.41	190.5	2.26	284	2.65	358	3.60	325	3.19	202	2.28	Number or percent of native students by enrollment in a four-year institution				
236	2.42	203.5	2.28	235.5	2.46	194.5	2.60	363.5	2.29	278.5	2.52	Number or percent of program completers by number of hours repeated				
237	2.42	248.5	2.45	157.5	2.18	358	3.60	315.5	3.16	245.5	2.42	Number or percent of entering students by cumulative GPA categories for program related course work				
238	2.42	246	2.44	133	2.07	162.5	2.60	354.5	3.25	244	2.42	Cost of accreditation studies per total program				
239	2.42	307	2.68	197.5	2.33	248	3.20	75.5	2.33	265.5	2.49	Ratings of program facilities/equipment by program leavers				
240	2.43	156	2.13	205	2.37	47	1.60	238.5	3.00	201	2.27	Number or percent of fulltime faculty/staff by type of language spoken				
241	2.43	256	2.40	289	2.66	358	3.60	303.5	3.14	223.5	2.33	Number or percent of students transferring with associate degree by GPA per type of course				
242	2.43	229	2.37	232	2.45	318	3.40	345.5	3.24	236.5	2.39	Number or percent of program leavers by term GPA categories				
243	2.44	272	2.55	78	1.87	424	4.00	281.5	2.10	287	2.55	Number or percent of program completers by salary categories				
244	2.44	169	2.17	270	2.58	162.5	2.60	126.5	2.57	270.5	2.50	Number or percent of program leavers by types of developmental/remedial assistance desired				
245	2.45	177	2.21	210.5	2.38	76.5	2.00	148.5	2.67	217	2.32	Number or percent of parttime faculty/staff by type of language spoken				
246	2.46	152.5	2.12	242	2.49	268	3.20	325	3.19	288	2.56	Number or percent of program leavers by academic skills level as measured by state instruments				
247	2.47	173	2.19	274.5	2.59	184.5	2.60	260.5	3.05	263.5	2.48	Number or percent of program completers by number of hours withdrawn				
248	2.47	290.5	2.62	194	2.31	318	3.40	281.5	3.10	210	2.30	Number or percent of entering students by cumulative GPA categories				
249	2.48	237	2.40	228	2.43	358	3.60	363.5	3.29	231	2.36	Number or percent of entering students by type of high school attended				
250	2.48	154.5	2.13	245	2.51	226.5	3.00	325	3.19	307.5	2.62	Number or percent of program leavers by performance on standardized national tests				
251	2.48	232.5	2.38	221.5	2.41	194.5	2.60	138	2.62	256	2.46	Number or percent of currently enrolled students by time spent in program				
252	2.49	226	2.35	232	2.45	318	3.40	363.5	3.29	289.5	2.56	Number or percent of program leavers by number of hours repeated				

Program Characteristics

Program Areas

All

Rank	Advan. & Prof.		Occup.		Develop.		Comm. Instr. Serv.		Sta. Serv.		Mean	Program Characteristics
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank		
253	2.49	222.5	2.34	320	2.62	358	3.60	395.5	3.43	275	2.34	Number or percent of students transferring without associate degree by type of college or university entered
254	2.49	140.5	2.08	270	2.58	304.5	3.80	222	2.95	313.5	2.64	Number or percent of program leavers by performance on standardized state tests
255	2.50	287.5	2.61	299	2.70	358	3.60	303.5	3.14	243	2.42	Number or percent of students transferring without associate degree by GPA per type of course
256	2.50	297.5	2.65	332	2.89	194.5	2.80	113	2.52	162	2.14	Number or percent of program leavers by need for various student services
257.5	2.51	266.5	2.52	201.5	2.34	268	3.20	236.5	3.00	276	2.51	Number or percent of entering students by number of hours completed
257.5	2.51	294	2.53	240	2.48	268	3.40	67.5	2.29	307.5	2.62	Number or percent of program leavers by employment status
259	2.51	278.5	2.58	330	2.91	130.5	2.40	192	2.86	150.5	2.10	Number or percent of program completers by need for various student services
260	2.51	258.5	2.52	298	2.69	358	3.60	345.5	3.24	254	2.44	Number or percent of native students by GPA per type of course
261	2.52	290.5	2.62	191	2.30	268	3.20	303.5	3.14	228	2.35	Number or percent of entering students by term GPA categories
262	2.52	171.5	2.18	245	2.51	268	3.20	383.5	3.29	237	2.59	Number or percent of program leavers by academic skills level as measured by national instruments
263	2.52	315	2.69	349	2.95	226.5	3.00	165	2.76	142	2.07	Number or percent of program leavers by use of various student services
264	2.53	290.5	2.62	251	2.62	394.5	3.80	385	3.38	228	2.35	Number or percent of entering students by scholastic honors, awards or memberships earned (scholarships, honorary societies, etc.)
265	2.53	241.5	2.43	263.5	2.53	194.5	2.80	281.5	3.10	281	2.53	Number or percent of program completers by number of hours
266	2.53	278.5	2.58	230	2.44	162.5	2.60	165	2.76	273.5	2.51	Incomplete
267	2.53	244	2.44	335	2.90	310	3.40	363.5	3.29	233	2.37	Number or percent of students transferring with associate degree by average course load
268	2.53	273	2.56	264.5	2.56	130.5	2.40	315.5	3.16	207	2.29	Number or percent of fulltime faculty/staff by level of involvement in campus extracurricular activities
269	2.54	263	2.51	154	2.16	358	3.60	192	2.86	338	2.75	Number or percent of currently enrolled students by number of years related work
270	2.54	250	2.46	331	2.69	318	3.40	345.5	3.24	226	2.35	Number or percent of native students by average course load
271	2.55	235	2.39	313	2.76	358	3.60	365	3.38	241	2.41	Number or percent of native students by type of college or university entered
272	2.55	348	2.84	160.5	2.22	194.5	2.80	75.5	2.33	322.5	2.68	Rating of a program curriculum by community (general)
273	2.55	240	2.42	213	2.39	130.5	2.40	379.5	3.35	292	2.58	Cost of accreditation studies per program FTE
274	2.55	257	2.48	208	2.37	162.5	2.60	105	2.45	302.5	2.60	Number or percent of parttime faculty/staff by level of participation in college governance
275	2.55	294	2.63	382.5	2.86	47	1.80	209	2.90	235	2.39	Number or percent of program completers by race classification
276	2.56	320	2.71	350.5	3.00	162.5	2.60	260.5	3.05	149	2.08	Number or percent of program completers by use of various student services
277	2.57	281	2.58	223	2.41	394.5	3.80	385	3.38	270.5	2.50	Number or percent of entering students by number of CLEP hours earned

Program Areas

All		Advan. & Prof.				Occup.				Comm. Instr. Serv.				Program Characteristics			
Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean				
276	2.57	237	2.40	237.5	2.47	276.5	3.00	175.5	2.81	336.5	2.74			Number or percent of program leavers by level of previous academic achievement			
279	2.57	301	2.66	218.5	2.40	268	3.20	281.5	3.10	276	2.51			Number or percent of entering students by number of hours completed			
280	2.68	171.5	2.18	281	2.61	162.5	2.60	298.5	3.00	326.5	2.69			Number or percent of program completers by level of previous academic achievement			
281	2.68	296	2.64	232	2.45	162.5	2.60	152	2.70	265.5	2.49			Number or percent of program leavers by level of awareness of college's programs, services, etc.			
282	2.59	344.5	2.80	291	2.66	424	4.00	375.5	3.33	228	2.35			Number or percent of entering students by level of financial assistance desired			
283	2.50	322.5	2.72	277	2.60	47	1.80	120	2.55	255	2.44			Number or percent of program completers by level of awareness of college's programs, services, etc.			
284.5	2.60	310.5	2.69	360.5	3.00	194.5	2.00	209	2.90	242	2.41			Number or percent of program leavers by race classification			
284.5	2.60	274.5	2.57	253.5	2.53	318	3.40	363.5	3.29	256	2.45			Number or percent of program leavers by degree level sought			
286	2.60	297.5	2.65	344	2.93	318	3.40	363.5	3.29	234	2.38			Number or percent of students transferring without associate degree by average course load			
287	2.61	276.5	2.57	214.5	2.39	162.5	2.60	390	3.40	302.5	2.60			Percent of accreditation studies per program unduplicated headcount			
288	2.61	315	2.69	194	2.31	226.5	3.00	99.5	2.43	351	2.83			Rankings of program facilities/equipment by community (general)			
289	2.62	335	2.75	166.5	2.20	194.5	3.80	139	2.62	352.5	2.83			Number or percent of currently enrolled students holding jobs for which trained			
290	2.62	299	2.66	262	2.55	318	3.40	238.5	3.00	262	2.48			Number or percent of entering students by number of hours withdrawn			
291	2.63	324	2.72	318	2.82	268	3.20	209	2.90	174	2.17			Number or percent of entering students by use of various student services			
292	2.63	266.5	2.52	270	2.58	105.5	2.20	238.5	3.00	297	2.59			Number or percent of currently enrolled students by test anxiety levels			
293	2.64	285.5	2.60	257	2.54	394.5	3.80	395.5	3.43	297	2.59			Number or percent of currently enrolled students by number of CLIP hours earned			
294	2.64	261.5	2.50	348	2.95	268	3.20	345.5	3.24	293	2.58			Number or percent of students transferring with associate degree by time taken for completion of a four-year degree			
295	2.64	310.5	2.69	250	2.51	358	3.60	209	2.90	343	2.78			Number or percent of program leavers by number of jobs held since leaving program			
296	2.64	344.5	2.80	287.5	2.85	268	3.20	157	2.71	316	2.66			Number or percent of currently enrolled students by employment status			
297	2.65	239	2.42	367.5	3.03	394.5	3.80	363.5	3.29	391	2.56			Number or percent of students transferring with associate degree by entering graduate school			
298.5	2.66	271	2.54	303.5	2.72	268	3.20	281.5	2.10	352.5	2.83			Number or percent of program completers by number of hours enrolled			
298.5	2.66	252	2.46	262	2.55	394.5	3.80	222	2.95	360	2.90			Number or percent of program leavers by number of hours enrolled			

Program Characteristics											
Program Areas											
All	Advan. & Prof.			Occup.			Comm. Instr. Serv.			Stu. Serv.	
	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
300	2.66	281	2.58	287.5	2.57	106.5	2.20	292	3.10	317.5	2.67
301	2.66	318	2.71	326.5	2.84	130.5	2.40	165	2.76	322.5	2.68
302	2.66	355	2.86	363.5	3.02	105.5	2.20	238.5	3.00	267	2.49
303	2.66	247	2.45	235.5	2.46	318	3.40	238.5	3.00	371.5	2.95
304	2.67	294	2.63	242	2.49	194.5	2.80	192	2.86	326.5	2.69
305	2.67	301	2.66	274.5	2.59	394.5	3.80	414.5	3.57	300	2.60
306	2.67	342.5	2.78	350.5	2.95	194.5	2.80	108	2.48	286	2.55
307	2.67	349.5	2.84	262	2.55	318	3.40	303.5	3.14	270.5	2.50
308	2.67	352	2.85	297	2.69	318	3.40	99.5	2.43	328	2.69
309	2.68	342.5	2.78	258	2.54	145	2.50	216.5	2.95	276	2.51
310	2.68	314	2.69	253.5	2.53	268	3.20	157	2.71	349	2.81
311	2.68	320	2.71	225	2.42	318	3.40	139	2.62	346	2.92
312	2.68	359	2.68	372.5	3.07	105.5	2.20	281.5	3.10	281	2.53
313	2.68	320	2.71	260	2.55	226.5	3.00	182	2.84	285	2.54
314	2.68	347	2.83	340	2.93	130.5	2.40	192	2.86	289.5	2.56
315	2.69	339	2.77	326.5	2.84	318	3.40	281.5	3.10	258	2.47
316	2.69	346	2.82	323	2.83	424	4.00	419.5	3.62	252.5	2.44
317	2.70	337	2.76	316	2.79	130.5	2.40	391	3.42	238	2.40
318	2.70	315	2.79	358	2.98	268	3.20	345.5	3.24	315	2.65
319	2.70	328	2.73	214.5	2.39	162.5	2.60	238.5	3.00	325	2.68
320	2.71	270	2.53	245	2.51	358	3.60	325	3.19	357	2.88
321	2.71	283.5	2.60	354	2.97	394.5	3.80	402.5	3.48	279.5	2.50
322	2.71	264	2.52	328	2.86	76.5	2.00	209	2.90	344	2.79
323	2.72	276.5	2.57	357	2.99	268	3.20	363.5	3.29	331	2.71

Number or percent of entering students by test anxiety levels
 Number or percent of program completers by age classification
 Number or percent of entering students by race classification
 Number or percent of program completers by number of years of related work
 Number or percent of currently enrolled students by amount of time since last formal educational experience
 Number or percent of currently enrolled students by scholastic honors, awards or memberships earned (scholarships, honorary societies, etc.)
 Number or percent of entering students by age classification
 Number or percent of entering students by number of hours incomplete
 Number or percent of entering students by employment status
 Number or percent of entering students by self-concept categories
 Ratings of program staff by community (general)
 Ratings of program administration by community (general)
 Number or percent of currently enrolled students by race classification
 Number or percent of fulltime faculty/staff by level of public service
 Number or percent of program completers by sex classification
 Number or percent of entering students by source of financial support
 Number or percent of currently enrolled students by level of financial assistance desired
 Number or percent of fulltime faculty/staff by level of participation in college governance
 Number of students transferring without associate degree by time taken for completion of four-year degree
 Number or percent of parttime faculty/staff by level of participation in professional organizations
 Number or percent of entering students by I.Q. categories
 Number or percent of students transferring with associate degree by name of university or college in which enrolled
 Number or percent of program completers by types of developmental or remedial assistance desired
 Number or percent of native students by time taken for completion of four-year degree

Program Characteristics

Program Areas

All	Advan. & Prof.				Occup.				Develop.				Comm. Instr. Serv.				Stu. Serv.
	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	
347	2.84	378	3.00	323	2.83	288	3.20	238.5	3.00	317.5	2.66	347.5	2.84	378	3.00	323	2.83
348.5	2.84	326	2.72	352.5	2.96	226.5	3.00	238.5	3.00	340.5	2.77	348.5	2.84	326	2.72	352.5	2.96
348.5	2.84	365	2.92	340	2.93	226.5	3.00	184	2.85	306	2.61	348.5	2.84	365	2.92	340	2.93
350	2.84	364	2.92	367.5	3.03	358	3.60	402.5	3.48	305	2.61	350	2.84	364	2.92	367.5	3.03
351	2.84	381	2.58	330	2.88	194.5	2.80	165	2.76	363	2.97	351	2.84	381	2.58	330	2.88
352	2.84	330	2.74	376	3.09	226.5	3.00	238.5	3.00	312	2.64	352	2.84	330	2.74	376	3.09
353	2.85	366	2.94	345	2.94	226.5	3.00	201.5	2.90	300	2.60	353	2.85	366	2.94	345	2.94
354	2.85	385.5	2.05	372.5	3.07	226.5	3.00	325	3.19	330	2.70	354	2.85	385.5	2.05	372.5	3.07
355	2.85	303	2.67	360.5	3.00	424	4.00	402.5	3.48	309	2.63	355	2.85	303	2.67	360.5	3.00
356	2.87	333.5	2.74	398	3.23	162.5	2.60	313	3.15	319.5	2.67	356	2.87	333.5	2.74	398	3.23
357	2.87	382.5	3.03	388	3.18	226.5	3.00	222	2.95	319.5	2.67	357	2.87	382.5	3.03	388	3.18
358	2.88	387.5	3.06	384.5	3.17	226.5	3.00	192	2.86	324	2.68	358	2.88	387.5	3.06	384.5	3.17
359	2.88	361	2.89	365.5	3.02	162.5	2.60	139	2.62	367	2.92	359	2.88	361	2.89	365.5	3.02
360	2.89	305	2.68	340	2.93	394.5	3.80	325	3.19	371.5	2.95	360	2.89	305	2.68	340	2.93
361	2.89	380	3.02	381	3.12	358	3.60	402.5	3.48	321	2.67	361	2.89	380	3.02	381	3.12
362	2.89	371	2.97	371	3.07	358	3.60	395.5	3.43	329	2.70	362	2.89	371	2.97	371	3.07
363	2.90	389	3.06	306	2.73	358	3.60	338.5	3.00	286	3.06	363	2.90	389	3.06	306	2.73
364	2.90	331.5	2.74	340	2.93	358	3.60	375.5	3.33	375	2.98	364	2.90	331.5	2.74	340	2.93
365	2.91	231	2.77	306	3.17	194.5	2.80	315.5	3.16	350	2.81	365	2.91	231	2.77	306	3.17
366	2.91	372.5	2.97	370	3.15	162.5	2.60	157	2.71	369	2.93	366	2.91	372.5	2.97	370	3.15
367	2.92	308	2.69	293	2.67	394.5	3.80	363.5	3.29	414	3.26	367	2.92	308	2.69	293	2.67
368	2.93	310.5	2.69	355.5	2.98	162.5	2.60	260.5	3.05	369	2.93	368	2.93	310.5	2.69	355.5	2.98
369	2.93	390	3.08	321	2.83	268	3.20	75.5	2.33	345.5	2.80	369	2.93	390	3.08	321	2.83
370	2.93	377	2.96	375	3.08	268	3.20	303.5	3.14	369	2.93	370	2.93	377	2.96	375	3.08
371	2.94	368	2.95	401.5	3.27	162.5	2.60	372	3.32	335	2.73	371	2.94	368	2.95	401.5	3.27

Ratings of usefulness of student services by community (general)
 Number or percent of currently enrolled students by language spoken in home
 Ratings of accessibility of student services by community (general)
 Number or percent of students transferring with associate degree
 By number of times changed major
 Number or percent of program leavers by amount of time since last formal educational experience
 Number or percent of fulltime faculty/staff by level of research activity
 Ratings of ease of use of student services by community (general)
 Number or percent of program leavers by sex classification
 Number or percent of native students by name of university or college in which enrolled
 Number or percent of parttime faculty/staff by race classification
 Number or percent of currently enrolled students by sex classification
 Number or percent of entering students by sex classification
 Number or percent of entering students by commuting distance categories
 Number or percent of program leavers by type of high school diploma
 Number or percent of students transferring without associate degree by number of times changed major
 Number or percent of native students by number of times changed major
 Ratings of program instructional strategies by community (general)
 Number or percent of program completers by type of high school diploma
 Number or percent of fulltime faculty/staff by age categories
 Number or percent of currently enrolled students by commuting distance categories
 Number or percent of program leavers by 1-0 categories
 Number or percent of program completers by amount of time since last formal educational experience
 Number or percent of parttime faculty/staff by level of public service
 Number or percent of program leavers by source of financial support
 Number or percent of fulltime faculty/staff by sex classification

Program Characteristics

Program Areas

All	Advan.		Occup.		Develop.		Comm.		Instr.		Stu.		
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	
372	2.95	375.5	2.90	355.5	2.98	394.5	3.80	402.5	3.48	375	2.98	375	Number or percent of program leavers by level of financial assistance desired
373	2.95	357	2.87	378.5	3.11	268	3.20	336	3.21	348	2.80	348	Number or percent of fulltime faculty/staff by level of publication activity
374	2.95	326	2.72	346.5	2.94	76.5	2.00	354.5	3.25	378	2.99	378	Number or percent of program completers by commuting distance categories
375	2.96	306	2.68	360.5	3.00	394.5	3.80	419.5	3.62	384.5	3.05	384.5	Number or percent of program leavers by number of CLEP hours earned
376	2.97	329	2.73	323	2.83	394.5	3.80	375.5	3.33	398	3.16	398	Number or percent of program completers by test anxiety levels
377	2.97	355	2.86	337	2.92	394.5	3.80	434	3.81	360	2.90	360	Number or percent of program leavers by scholastic honors, awards, or memberships earned (scholarships, honorary societies, etc.)
378	2.99	362	2.90	395	3.22	194.5	2.80	238.5	3.00	358	2.89	358	Number or percent of parttime faculty/staff by age classification
379	2.99	363	2.91	383	3.16	268	3.20	139	2.62	406.5	3.23	406.5	Number or percent of program leavers by commuting distance categories
380	3.02	381	3.02	416	3.35	194.5	2.80	325	3.19	356	2.86	356	Number or percent of parttime faculty/staff by sex classification
381	3.03	398.5	3.13	350.5	2.95	268	3.20	303.5	3.14	380	3.01	380	Number or percent of entering students by time spent in program
382	3.03	402.5	3.15	310	2.75	424	4.00	345.5	3.24	389	3.10	389	Number or percent of entering students by personality types
383	3.04	367	2.94	388	3.18	318	3.40	325	3.19	394	3.13	394	Number or percent of entering students by language spoken in home
384	3.04	384	3.03	378.5	3.11	226.5	3.00	379.5	3.35	345.5	2.80	345.5	Number or percent of parttime faculty/staff by level of involvement in campus extracurricular activities
385	3.05	396.5	3.12	311.5	2.76	424	4.00	345.5	3.24	388	3.09	388	Number or percent of currently enrolled students by personality types
386	3.06	369.5	2.95	392	3.20	226.5	3.00	345.5	3.24	391	3.10	391	Number or percent of program completers by language spoken in home
387	3.06	406	3.21	301	2.71	394.5	3.80	325	3.19	391	3.10	391	Number or percent of currently enrolled students by salary categories
388	3.06	391	3.10	395	3.22	318	3.40	325	3.19	363	2.92	363	Number or percent of parttime faculty/staff by level of research activity
389	3.06	379	3.02	408.5	3.31	318	3.40	375.5	3.33	377	2.98	377	Number or percent of entering students by household income classification
390	3.07	350	2.88	408.5	3.31	318	3.40	192	2.86	402	3.19	402	Number or percent of entering students by educational status of family
391	3.08	387.5	3.06	315	2.78	394.5	3.80	363.5	3.29	404	3.22	404	Number or percent of program leavers by personality types
392.5	3.09	396.5	3.12	403	3.26	318	3.40	305	3.38	378	3.00	378	Number or percent of program completers by source of financial support
392.5	3.09	352	2.85	417.5	3.36	394.5	3.80	238.5	3.00	410.5	3.25	410.5	Number or percent of program leavers by educational status of family
394	3.10	400	3.14	405.5	3.29	268	3.20	260.5	3.05	406.5	3.23	406.5	Number or percent of program completers by commuting distance categories

Program Characteristics

Program Areas

All	Advan. & Prof.				Comm. Instr. Serv.				Stu. Serv.			
	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean
395	3.10	390.5	3.13	395	3.22	226.5	3.00	417	3.60	364	2.92	Number or percent of parttime faculty/staff by level of participation in college governance
396	3.11	393	3.11	410	3.23	268	3.20	410	3.52	401	3.18	Number or percent of program leavers by household income classification
397	3.11	393	3.11	411.5	3.34	268	3.20	402.5	3.48	398	3.16	Number or percent of program completers by household income classification
398	3.11	395.5	3.05	333.5	2.89	424	4.00	345.5	3.24	398	3.16	Number or percent of program completers by citizenship classification
399	3.12	393	3.11	384.5	3.17	424	4.00	410	3.53	381.5	3.02	Number or percent of entering students by level of involvement in high school activities
400	3.12	372.5	2.97	423	3.42	226.5	3.00	260.5	3.05	410.5	3.25	Number or percent of program completers by educational status of family
401	3.13	402.5	3.15	420.5	3.39	318	3.40	395.5	3.43	376	2.98	Number or percent of currently enrolled students by household income classification
402	3.13	396	3.11	393	3.22	318	3.40	423.5	3.57	391	3.10	Number or percent of program completers by level of financial assistance desired
403	3.14	416	3.34	329	2.87	394.5	3.80	363.5	3.29	400	3.18	Number or percent of entering students by salary categories
404	3.15	412.5	3.29	414	3.35	162.5	2.60	363.5	3.29	381.5	3.02	Number or percent of entering students by citizenship classification
405	3.15	382.5	3.03	420.5	3.39	318	3.40	238.5	3.00	404	3.22	Number or percent of currently enrolled students by educational status of family
406	3.18	401	3.16	405.5	3.29	318	3.40	406.5	3.50	387	3.06	Number or percent of parttime faculty/staff by level of public-time activity
407	3.23	418	3.35	407	3.30	76.5	2.00	398.5	3.43	412.5	3.26	Number or percent of program completers by citizenship classification
408	3.24	408.5	3.22	411.5	3.34	424	4.00	433	3.76	395	3.14	Number or percent of entering students by military service classification
409	3.24	428.5	3.42	418	3.37	162.5	2.60	395.5	3.43	393	3.12	Number or percent of currently enrolled students by citizenship classification
410	3.26	406	3.20	400	3.27	394.5	3.80	414.5	3.57	416.5	3.30	Number or percent of entering students by parents' occupational categories
411	3.29	415	3.32	414	3.35	424	4.00	429	3.71	396	3.15	Number or percent of currently enrolled students by military service classification
412	3.30	404	3.17	431	3.51	318	3.40	385	3.38	404	3.22	Number or percent of program completers by marital status
413	3.30	408.5	3.22	417.5	3.36	394.5	3.80	414.5	3.57	318	3.33	Number or percent of currently enrolled students by parents' occupational categories
414	3.31	423.5	3.39	388	3.18	394.5	3.80	292	3.10	424.5	3.41	Number or percent of currently enrolled students by level of public service involvement (however measured)

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BIOGRAPHICAL SKETCH

Carlisle Baxter Rathburn III was born March 24, 1957, in Vero Beach, Florida. He attended elementary and secondary school in Panama City, Florida, graduating from Mosley High School in 1975. He attended Gulf Coast Community College in Panama City receiving the Associate of Arts degree in 1977.

During the summer of 1977, he transferred to Huntingdon College in Montgomery, Alabama and was elected President of the Student Body for the 1978-79 school year. In 1979, he graduated cum laude with a Bachelor of Arts degree in biology and secondary education.

In September, 1979, he began his graduate studies in the Department of Counselor Education at the University of Florida. During the 1979-80 school year, he served as the Assistant to the Director of the P. K. Yonge Laboratory school in Gainesville, Florida. In July, 1980, he transferred into the doctoral program of the Department of Educational Administration at the University of Florida. From September, 1980, until July of 1982, he was employed as a research assistant for the Florida Community/Junior College Inter-institutional Research Council. In August of 1981, he was employed as a Research Associate in the Office for Development and completed his work toward the degree of Doctor of Philosophy in 1982.

Carlisle Baxter Rathburn III is married to the former Tamara Susan Thomas of Fort Walton Beach, Florida.

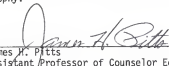
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James L. Wattenbarger, Chairman
Professor of Educational Administration and Supervision

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


John M. Nickens
Associate Professor of Educational Administration
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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


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This dissertation was submitted to the Graduate Faculty of the Department of Educational Administration and Supervision in the College of Education and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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